



# SPOS

TE COMP (6th SEMESTER)

FINAL

APPROVED

# TATYA PDF

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Seat No -

Total number of questions : 60

PWD10886\_SYSTEMS PROGRAMMING AND OPERATING SYSTEM

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
- 2) Attempt any 50 questions out of 60.
- 3) Use of calculator is allowed.
- 4) Each question carries 1 Mark.
- 5) Specially abled students are allowed 20 minutes extra for examination.
- 6) Do not use pencils to darken answer.
- 7) Use only black/blue ball point pen to darken the appropriate circle.
- 8) No change will be allowed once the answer is marked on OMR Sheet.
- 9) Rough work shall not be done on OMR sheet or on question paper.
- 10) Darken ONLY ONE CIRCLE for each answer.

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**Q.no 1. The last statement of the source program should be**

A : Stop

B : Return

C : OP

**D : End**

**Q.no 2. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

**C : syntax analysis**

D : code optimization

**Q.no 3. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 4. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use**

D : Optimal page replacement policy

**Q.no 5. which of the following is not a type of translator?**

A : assembler

B : compiler

**C : loader**

D : interpreter

**Q.no 6. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

**D : anywhere in a program**

**Q.no 7. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 8. The advantage of I/O mapped devices to memory mapped is**

- A : The former offers faster transfer of data
- B : The devices connected using I/O mapping have a bigger buffer space
- C : The devices have to deal with fewer address lines
- D : No advantage as such

**Q.no 9. A process is moved to wait queue when I/O request is made with**

- A : non-blocking I/O
- B : blocking I/O
- C : asynchronous I/O
- D : synchronous I/O

**Q.no 10. Which algorithm is defined in Time quantum?**

- A : shortest job scheduling algorithm
- B : round robin scheduling algorithm
- C : priority scheduling algorithm
- D : multilevel queue scheduling algorithm

**Q.no 11. Page fault frequency in an operating system is reduced when the**

- A : processes tend to be I/O-bound
- B : size of pages is reduced
- C : processes tend to be CPU-bound
- D : locality of reference is applicable to the process

**Q.no 12. Which command gives dynamic view of process states**

- A : PS
- B : TOP
- C : fork
- D : kill

**Q.no 13. Which of the following is used for grouping of characters into tokens?**

- A : Parser
- B : Code optimization
- C : Code generator
- D : Lexical analyser**

**Q.no 14. Output file of Lex is \_\_\_\_\_ , if the input file is Myfile.**

- A : Myfile.e
- B : Myfile.yy.c**
- C : Myfile.lex
- D : Myfile.obj

**Q.no 15. When expression sum=3+2 is tokenized then what is the token category of 3**

- A : Identifier
- B : Assignment operator
- C : Integer Literal**
- D : Addition Operator

**Q.no 16. The output of a lexical analyzer is**

- A : Machine code
- B : Intermediate code
- C : A stream of tokens**
- D : A parse tree

**Q.no 17. Virtual memory is**

- A : An extremely large main memory
- B : An extremely large secondary memory
- C : An illusion of extremely large main memory**
- D : A type of memory used in super computers

**Q.no 18. The purpose of the ORIGIN directive is,**

- A : To indicate the purpose of the code
- B : To indicate the starting of the computation code
- C : To indicate the starting position in memory, where the program block is to be stored**
- D : To list the locations of all the registers used

**Q.no 19. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

- A : all process
- B : currently running process**
- C : parent process
- D : init process

**Q.no 20. In assembler design memory allocation to symbols is done in**

- A : pass 1 of assembler**
- B : pass 2 of assembler
- C : In both the passes
- D : at the time of synthesis

**Q.no 21. Shell is the exclusive feature of**

- A : Dos
- B : Unix**
- C : System software
- D : Application software

**Q.no 22. Each entry in a translation lookaside buffer (TL) consists of**

- A : key**
- B : value
- C : bit value
- D : constant

**Q.no 23. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 24. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

**A : Leftmost derivation**

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 25. In which disk information is recorded magnetically on platters.**

**A : magnetic disks**

B : electrical disks

C : assemblies

D : cylinders

**Q.no 26. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

**B : user level thread**

C : process

D : priority Process

**Q.no 27. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

**B : SJF – Shortest Job First**

C : RR – Round Robin

D : priority

**Q.no 28. The time taken to move the disk arm to the desired cylinder is called the**

- A : positioning time
- B : random access time
- C : seek time**
- D : rotational latency

**Q.no 29. File type can be represented by**

- A : file extension**
- B : file identifier
- C : file name
- D : none of the mentioned

**Q.no 30. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

- A : assigning ready processes to CPU**
- B : assigning ready processes to waiting queue
- C : assigning running processes to blocked queue
- D : assign prcess from wating to ready queue

**Q.no 31. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

- A : earliest due date
- B : slack time remaining
- C : first come, first served**
- D : critical ratio

**Q.no 32. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

- A : Last in first out
- B : Shortest service time first**
- C : Priority by process

D : Random scheduling

**Q.no 33. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 34. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 35. The offset 'd' of the logical address must be**

A : greater than segment limit

B : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 36. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 37. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

D : Both A and B

**Q.no 38. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 39. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Iburg

**Q.no 40. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 41. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 42. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 43. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 44. Static memory allocation is typically performed during**

**A : compilation**

B : execution

C : loading

D : linking

**Q.no 45. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 46. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 47. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 48. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 49. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 50. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 51. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 52. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 53. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 54. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 55. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 56. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 57. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 58. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 59. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 60. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 1. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 2. Which of the following is not an intermediate code form?**

- A : Postfix notation
- B : Syntax trees
- C : Three address codes
- D : Prefix notation**

**Q.no 3. The memory allocation scheme subject to “external” fragmentation is**

- A : segmentation**
- B : swapping
- C : pure demand paging
- D : multiple fixed contiguous partitions

**Q.no 4. The process wherein the processor constantly checks the status flags is called as**

- A : Polling**
- B : Inspection
- C : Reviewing
- D : Echoing

**Q.no 5. Effective access time is directly proportional to**

- A : memory access time
- B : page-fault rate**
- C : hit ratio
- D : none of the mentioned

**Q.no 6. The data-in register of I/O port is**

- A : Read by host to get input**
- B : Read by controller to get input
- C : Written by host to send output
- D : Written by host to start a command

**Q.no 7. The function of OS**

- A : Resource allocator
- B : control program
- C : create user friendly env.
- D : All**

**Q.no 8. Assembly language programs are written using**

- A : Hex code
- B : Mnemonics**
- C : ASCII code
- D : C Language

**Q.no 9. On a movable head system, the time it takes to position the head at the track is known as**

- A : seek time**
- B : rotational delay
- C : access time
- D : Transfer time

**Q.no 10. Task of the lexical analysis phase is**

- A : to parse the source program into basic elements or tokens of the language
- B : checks that given statement is syntactically correct or not
- C : removes comments and white spaces
- D : Both 1 & 3**

**Q.no 11. Which technique is used for temporarily removing inactive programs from the memory of computer system**

- A : Swapping**
- B : Spooling
- C : Semaphore

D : Scheduler

**Q.no 12. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 13. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

B : ready queue

C : cpu

D : secondary storage

**Q.no 14. The end of a macro can be represented by the directive**

A : END

B : ENDS

C : MEND

D : ENDD

**Q.no 15. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 16. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 17. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 18. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 19. Which of the following type of software should be used if you need to create,edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 20. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 21. Format of macro call is**

A : <macro name> [<actual parameter spec>,...]

B : <macro name> [<formal parameter spec>,...]

C : <macro name>

D : <call macro>

**Q.no 22. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

**B : first executes the job that came in first in the queue**

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 23. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

**C : bridge gap between programmer and system**

D : bridge gap between different systems

**Q.no 24. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

**C : Scanner**

D : Loader

**Q.no 25. Which of the following table is used to identify macro calls?**

**A : Macro Name table**

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 26. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 27. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 28. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 29. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 30. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 31. Which of the following isn't a part of the file directory?**

A : Attributes

B : Protocol

C : Location

D : Ownership

**Q.no 32. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 33. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 34. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 35. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 36. Input of Lex is ?**

A : set to regular expression

B : statement

C : Numeric data

D : ASCII data

**Q.no 37. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

**B : Syntax analysis**

C : Semantic analysis

D : Structure analysis

**Q.no 38. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

**C : generates an error**

D : something else

**Q.no 39. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 40. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

**B : it helps to reduce the size of page table needed to implement the virtual address space of a process**

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 41. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 42. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 43. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 44. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 45. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 46. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 47. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 48. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 49. How Sequential access method works on random access devices.**

A : works well

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 50. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 51. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 52. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 53. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 54. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 55. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 56. A grammar that produces more than one parse tree for some sentence is called**

**A : Ambiguous**

B : Unambiguous

C : Regular

D : None of these

**Q.no 57. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 58. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 59. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 60. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 1. A macro is**

A : a small program inside a program

B : set of special instructions

**C : a unit of specification for program generation through expansion**

D : same as function

**Q.no 2. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 3. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

**A : first-come, first-served scheduling**

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 4. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 5. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

**C : Interrupts**

D : DMA

**Q.no 6. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

**D : Left to right and right most derivation in reverse**

**Q.no 7. which algo. Is nonpreemptive**

A : SJF-P

**B : FCFS**

C : RR

D : Priority

**Q.no 8. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

**D : Operating System**

**Q.no 9. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 10. The pager concerns with the**

A : entire thread

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 11. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 12. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 13. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

C : A stream of tokens

D : A parse tree

**Q.no 14. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

**Q.no 15. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

B : blocking I/O

C : asynchronous I/O

D : synchronous I/O

**Q.no 16. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 17. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 18. In priority scheduling algorithm**

A : CPU is allocated to the process with highest priority

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 19. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 20. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 21. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 22. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 23. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

D : Both A and B

**Q.no 24. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 25. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 26. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 27. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 28. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 29. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 30. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

**D : rotational latency**

**Q.no 31. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

**A : Simultaneous access**

B : Compaction

C : External Fragmentation

D : Division

**Q.no 32. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

**C : valid – invalid**

D : access

**Q.no 33. Absolute loader loads object code in memory from**

**A : Fixed location given by programmer**

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 34. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 35. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 36. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

D : protection bit with each page

**Q.no 37. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 38. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appears to execute a source program as if it were machine language

**Q.no 39. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

**B : Indexed allocation**

C : Contiguous allocation

D : Variable allocation

**Q.no 40. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 41. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 42. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

**A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 43. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 44. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 45. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 46. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 47. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 48. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 49. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 50. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 51. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 52. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 53. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 54. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 55. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 56. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 57. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 58. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 59. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 60. In a two pass assembler the object code generation is done during the ?**

**A : Second pass**

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 1. In which of the following page replacement policies Balady's anomaly occurs?**

**A : FIFO**

B : LRU

C : LFU

D : NRU

**Q.no 2. Which statement declare the name of macro.**

**A : macro prototype**

B : macro definition

C : macro identification

D : macro call

**Q.no 3. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 4. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

**D : Least Recently used**

**Q.no 5. Which technique is used for temporarily removing inactive programs from the memory of computer system**

**A : Swapping**

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 6. Assembly language programs are written using**

A : Hex code

**B : Mnemonics**

C : ASCII code

D : C Language

**Q.no 7. The data-in register of I/O port is**

**A : Read by host to get input**

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 8. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

C : An illusion of extremely large main memory

D : A type of memory used in super computers

**Q.no 9. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 10. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 11. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 12. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 13. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

**D : locality of reference is applicable to the process**

**Q.no 14. Expansion time variables are used**

A : Before expansion of macro calls

**B : only during expansion of macro calls**

C : After expansion of macro calls

D : Any one of the above

**Q.no 15. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 16. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

**B : ready queue**

C : execution queue

D : process queue

**Q.no 17. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

C : syntax analysis

D : code optimization

**Q.no 18. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 19. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 20. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 21. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 22. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 23. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 24. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 25. Pass-1 of two pass assembler is used for**

A : synthesizing code

B : gathering information

C : processing macro

D : expanding macro

**Q.no 26. To obtain better memory utilization, dynamic loading is used. With dynamic loading, a routine is not loaded until it is called. For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 27. A process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

**D : Demand paging**

**Q.no 28. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

**C : MACRO**

D : none of the mentioned

**Q.no 29. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

**C : macro**

D : none of the mentioned

**Q.no 30. A self relocating program is one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

**C : one itself performs the relocation of its address sensitive positions**

D : Both 1 & 2

**Q.no 31. If the lexical analyser finds a lexeme with the same name as that of a reserved word, it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

**C : generates an error**

D : something else

**Q.no 32. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

**B : Syntax analysis**

C : . Semantic analysis

D : Structure analysis

**Q.no 33. Each entry in a translation lookaside buffer (TL consists of**

**A : key**

B : value

C : bit value

D : constant

**Q.no 34. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

**D : defining a macro**

**Q.no 35. File type can be represented by**

**A : file extension**

B : file identifier

C : file name

D : none of the mentioned

**Q.no 36. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 37. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 38. The offset ‘d’ of the logical address must be**

A : greater than segment limit

B : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 39. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 40. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 41. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 42. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 43. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 44. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 45. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 46. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 47. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 48. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 49. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 50. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 51. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 52. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 53. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 54. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 55. How Sequential access method works on random access devices.**

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 56. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 57. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 58. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 59. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 60. The valid – invalid bit, in this case, when valid indicates?**

- A : the page is not legal
- B : the page is illegal
- C : the page is in memory**
- D : the page is not in memory

**Q.no 1. Output file of Lex is \_\_\_\_\_ , if the input file is Myfile.**

- A : Myfile.e
- B : Myfile.yy.c**
- C : Myfile.lex
- D : Myfile.obj

**Q.no 2. The output of a lexical analyzer is**

- A : Machine code
- B : Intermediate code
- C : A stream of tokens**
- D : A parse tree

**Q.no 3. A macro can be defined at**

- A : beginning of a program
- B : end of a program
- C : after initialisation of program
- D : anywhere in a program**

**Q.no 4. Which module gives control of the CPU to the process selected by the short-term scheduler?**

- A : Dispatcher**
- B : interrupt
- C : scheduler
- D : interpreter

**Q.no 5. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

- A : all process
- B : currently running process**
- C : parent process
- D : init process

**Q.no 6. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

- A : first-come, first-served scheduling**
- B : shortest job scheduling
- C : priority scheduling
- D : Round Robin

**Q.no 7. Time sharing system is implemented using**

- A : FCFS
- B : SJF
- C : RR**
- D : priority

**Q.no 8. Relocatable programs**

- A : cannot be used with fixed partitions
- B : can be loaded almost anywhere in memory**
- C : do not need a linker
- D : can be loaded only at one specific location

**Q.no 9. A model statement contains call for another macro is called as**

- A : referential macro call
- B : nested macro call**
- C : inbuilt macro call

D : inherited macro call

**Q.no 10. Which of the following type of software should be used if you need to create,edit and print document ?**

A : word proccessor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 11. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 12. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

B : ready queue

C : cpu

D : secondary storage

**Q.no 13. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 14. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 15. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 16. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

D : Operating System

**Q.no 17. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

B : blocking I/O

C : asynchronous I/O

D : synchronous I/O

**Q.no 18. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 19. Which of the following is used for grouping of characters into tokens?**

A : Parser

B : Code optimization

C : Code generator

D : Lexical analyser

**Q.no 20. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

D : Both 1 & 3

**Q.no 21. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 22. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

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**Q.no 23. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 24. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 25. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 26. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 27. Input of Lex is ?**

A : set to regular expression

B : statement

C : Numeric data

D : ASCII data

**Q.no 28. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 29. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 30. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 31. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 32. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 33. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

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**Q.no 34. Bit used for Illegal addresses are trapping are called as**

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B : Any location which is free

C : Fixed location given by assembler

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**Q.no 36. Which is the most optimal scheduling algorithm?**

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C : RR – Round Robin

D : priority

**Q.no 37. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 38. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

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B : decreases the swap time

**C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

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C : Zeroth pass

D : Not done by assembler

**Q.no 51. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 52. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 53. An edge from process Pi to Pj in a wait for graph indicates that**

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B : Pj is waiting for Pi to release a resource that Pj needs

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D : Pj is waiting for Pi to leave the system

**Q.no 54. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

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D : Free Block List

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C : yet another compiler constructs

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D : either deadlock exists or system is in a safe state

**Q.no 58. The translator which translates high level language to machine code is**

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D : interpreter

**Q.no 59. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 60. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 1. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 2. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 3. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

**B : Logical I/O**

C : Device I/O

D : Scheduling and control

**Q.no 4. Literal table stores**

**A : Numbers from code**

B : variables from code

C : instruction

D : Opcodes

**Q.no 5. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 6. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use**

D : Optimal page replacement policy

**Q.no 7. which algo. Is nonpreemptive**

A : SJF-P

**B : FCFS**

C : RR

D : Priority

**Q.no 8. Output of pass 1 assembler is**

A : object code

**B : intermediate code**

C : assembly language code

D : machine code

**Q.no 9. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 10. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 11. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

**C : The devices have to deal with fewer address lines**

D : No advantage as such

**Q.no 12. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

**B : turnaround time**

C : response time

D : throughput

**Q.no 13. On a movable head system, the time it takes to position the head at the track is known as**

A : seek time

B : rotational delay

C : access time

D : Transfer time

**Q.no 14. which of the following is not a type of translator?**

A : assembler

B : compiler

C : loader

D : interpreter

**Q.no 15. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 16. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 17. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 18. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 19. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 20. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 21. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 22. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 23. Way of specifying arguments in instruction is**

A : instruction format

**B : addressing modes**

C : both 1 & 2

D : function

**Q.no 24. Which of the following isn't a part of the file directory?**

A : Attributes

**B : Protocol**

C : Location

D : Ownership

**Q.no 25. Format of macro call is**

**A : <macro name> [<actual parameter spec>,...]**

B : <macro name> [<formal parameter spec>,...]

C : <macro name>

D : <call macro>

**Q.no 26. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

**C : MACRO**

D : none of the mentioned

**Q.no 27. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 28. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

**B : Indexed allocation**

C : Contiguous allocation

D : Variable allocation

**Q.no 29. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 30. Assembler processes**

A : any language

**B : assembly language**

C : c language

D : high level language

**Q.no 31. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 32. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 33. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

D : Both A and B

**Q.no 34. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

B : Preemptive scheduling

C : Shortest job first

D : First come First served

**Q.no 35. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 36. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 37. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 38. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 39. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 40. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 41. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 42. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 43. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

**D : Free Block List**

**Q.no 44. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

**Q.no 45. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 46. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 47. The FCFS algorithm is particularly troublesome for**

- A : time sharing systems
- B : multiprogramming systems**

- C : multiprocessor systems
- D : operating systems

**Q.no 48. RLD in Direct linking loader stands for**

- A : Redirection and Load Directory
- B : Relocation & Linkage Directory**
- C : Relocation and Load Directory
- D : Redirection and Linkage Directory

**Q.no 49. An assembler is**

- A : programming language dependent
- B : syntax dependant
- C : machine dependant**
- D : data dependant

**Q.no 50. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

- A : write ahead
- B : read ahead
- C : free-behind**
- D : add-front

**Q.no 51. Forward reference table(FRT) is arranged like -**

- A : Stack
- B : Queue
- C : Linked list**
- D : Double linked list

**Q.no 52. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 53. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 54. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automate the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 55. How Sequential access method works on random access devices.**

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 56. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 57. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 58. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 59. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 60. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 1. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

**C : syntax analysis**

D : code optimization

**Q.no 2. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

**C : To indicate the starting position in memory, where the program block is to be stored**

D : To list the locations of all the registers used

**Q.no 3. Expansion time variables are used**

A : Before expansion of macro calls

**B : only during expansion of macro calls**

C : After expansion of macro calls

D : Any one of the above

**Q.no 4. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

**B : LIFO (Last in First out)**

C : FILO rule (First in last out)

D : None of the above

**Q.no 5. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 6. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 7. The pager concerns with the**

A : entire thread

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 8. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 9. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 10. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 11. Which command gives dynamic view of process states**

A : PS

**B : TOP**

C : fork

D : kill

**Q.no 12. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 13. Effective access time is directly proportional to**

A : memory access time

**B : page-fault rate**

C : hit ratio

D : none of the mentioned

**Q.no 14. To access services from OS, an interface is provided Called as**

**A : System call**

B : API

C : library

D : shell

**Q.no 15. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

**B : ready queue**

C : execution queue

D : process queue

**Q.no 16. Which of the following type of software should be used if you need to create,edit and print document ?**

A : word proccessor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 17. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 18. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 19. Output file of Lex is \_\_\_\_ , if the input file is Myfile.**

A : Myfile.e

B : Myfile.yy.c

C : Myfile.lex

D : Myfile.obj

**Q.no 20. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 21. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 22. Each entry in a translation lookaside buffer (TL consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 23. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 24. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 25. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 26. Linking is process of binding**

A : Internal part of a program

B : external functional call

**C : External reference to the correct link time address**

D : None of the above

**Q.no 27. In multilevel feedback scheduling algorithm**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 28. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

**C : macro**

D : none of the mentioned

**Q.no 29. Pass-1 of two pass assmbler is used for**

A : synthesizing code

**B : gathering information**

C : processing macro

D : expanding macro

**Q.no 30. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 31. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

B : SJF – Shortest Job First

C : RR – Round Robin

D : priority

**Q.no 32. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 33. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 34. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 35. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 36. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

D : protection bit with each page

**Q.no 37. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

D : defining a macro

**Q.no 38. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 39. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 40. To obtain better memory utilization, dynamic loading is used With dynamic loading, a routine is not loaded until it is called For implementing dynamic loading**

- A : special support from hardware is required
- B : special support from operating system is essential
- C : special support from both hardware and operating system is essential
- D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 41. Libraries that are loaded and unloaded as and when needed is called as**

- A : Static Linking library
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- C : load time linking library
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- A : Pi is waiting for Pj to release a resource that Pi needs
- B : Pj is waiting for Pi to release a resource that Pj needs
- C : Pi is waiting for Pj to leave the system
- D : Pj is waiting for Pi to leave the system

**Q.no 43. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

- A : page fault occurs
- B : fatal error occurs
- C : segmentation fault occurs
- D : no error occurs

**Q.no 44. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

- A : Optimal replacement
- B : LRU

C : FIFO

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**Q.no 46. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

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B : Number

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D : General analysis

**Q.no 48. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 49. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 50. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 51. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 52. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 53. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 54. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm**

**that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 55. The translator which translates high level language to machine code is**

**A : compiler**

B : assembler

C : loader

D : interpreter

**Q.no 56. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

**A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 57. Static memory allocation is typically performed during**

**A : compilation**

B : execution

C : loading

D : linking

**Q.no 58. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

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**B : Chained Free Portions**

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B : yet accept compiler compiler

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**B : then a deadlock exists**

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B : macro definition

C : macro identification

D : macro call

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A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

**C : The devices have to deal with fewer address lines**

D : No advantage as such

**Q.no 3. A model statement contains call for another macro is called as**

A : referential macro call

**B : nested macro call**

C : inbuilt macro call

D : inherited macro call

**Q.no 4. In priority scheduling algorithm**

A : CPU is allocated to the process with highest priority

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 5. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 6. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

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B : File system

C : Directory management

D : Scheduling and control

**Q.no 7. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 8. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 9. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

**D : Both 1 & 3**

**Q.no 10. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

**B : currently running process**

C : parent process

D : init process

**Q.no 11. The last statement of the source program should be**

A : Stop

B : Return

C : OP

**D : End**

**Q.no 12. A macro is**

A : a small program inside a program

B : set of special instructions

**C : a unit of specification for program generation through expansion**

D : same as function

**Q.no 13. Relocatable programs**

A : cannot be used with fixed partitions

**B : can be loaded almost anywhere in memory**

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 14. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

**D : All**

**Q.no 15. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

**D : Least Recently used**

**Q.no 16. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

**D : locality of reference is applicable to the process**

**Q.no 17. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

**C : A stream of tokens**

D : A parse tree

**Q.no 18. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

**Q.no 19. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 20. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 21. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 22. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 23. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 24. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 25. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 26. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 27. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

B : Indexed allocation

C : Contiguous allocation

D : Variable allocation

**Q.no 28. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 29. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 30. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 31. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

B : Preemptive scheduling

C : All of the mentioned

D : processes are classified into groups

**Q.no 32. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 33. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

- A : Last in first out
- B : Shortest service time first**
- C : Priority by process
- D : Random scheduling

**Q.no 34. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

- A : LOOK
- B : SCAN**
- C : C-SCAN
- D : C-LOOK

**Q.no 35. Input to code generator is**

- A : Source code
- B : Intermediate code**
- C : Target code
- D : tokens

**Q.no 36. Shell is the exclusive feature of**

- A : Dos
- B : Unix**
- C : System software
- D : Application software

**Q.no 37. Yacc resolves conflicts by of type ?**

- A : Reduce - Reduce
- B : Shift - Reduce
- C : Shift - Shift

D : Both A and B

**Q.no 38. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 39. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 40. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 41. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 42. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 43.** These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 44.** If linked origin is not equal to translated address then relocation is performed by

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 45.** The FCFS algorithm is particularly troublesome for

**A : time sharing systems**

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 46.** Which method on free space management, each block is assigned in a reserved portion of the disk.

A : Bit tables

B : Chained Free Portions

C : Indexing

**D : Free Block List**

**Q.no 47.** Segment replacement algorithms are more complex than page replacement algorithms because

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 48. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 49. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 50. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 51. How Sequential access method works on random access devices.**

A : works well

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 52. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 53. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 54. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 55. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 56. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 57. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

**C : the page is in memory**

D : the page is not in memory

**Q.no 58. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 59. In a two pass assembler the object code generation is done during the ?**

**A : Second pass**

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 60. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 1. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 2. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 3. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 4. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 5. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 6. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

**B : Logical I/O**

C : Device I/O

D : Scheduling and control

**Q.no 7. In memory-mapped I/O**

**A : The I/O devices and the memory share the same address space**

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 8. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

**C : An illusion of extremely large main memory**

D : A type of memory used in super computers

**Q.no 9. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use)

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use)**

D : Optimal page replacement policy

**Q.no 10. The data-in register of I/O port is**

**A : Read by host to get input**

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 11. Which of the following is used for grouping of characters into tokens?**

- A : Parser
- B : Code optimization
- C : Code generator
- D : Lexical analyser**

**Q.no 12. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

- A : semantic analysis
- B : code generation
- C : syntax analysis**
- D : code optimization

**Q.no 13. Examples of system program includes**

- A : Ticket booking system
- B : Banking software
- C : Online shopping program
- D : Operating System**

**Q.no 14. process is trash**

- A : it spends more time paging than executing**
- B : it spends less time paging than executing
- C : page fault occurs
- D : swapping can not take place

**Q.no 15. A process is moved to wait queue when I/O request is made with**

- A : non-blocking I/O
- B : blocking I/O**
- C : asynchronous I/O
- D : synchronous I/O

**Q.no 16. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 17. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 18. Output file of Lex is \_\_\_\_ , if the input file is Myfile.**

A : Myfile.e

B : Myfile.yy.c

C : Myfile.lex

D : Myfile.obj

**Q.no 19. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 20. Which of the following type of software should be used if you need to create,edit and print document ?**

A : word proccessor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 21. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 22. Pass-1 of two pass assembler is used for**

A : synthesizing code

B : gathering information

C : processing macro

D : expanding macro

**Q.no 23. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 24. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 25. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 26. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

B : SJF – Shortest Job First

C : RR – Round Robin

D : priority

**Q.no 27. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 28. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 29. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 30. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 31. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 32. To obtain better memory utilization, dynamic loading is used With dynamic loading, a routine is not loaded until it is called For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 33. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 34. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 35. Input of Lex is ?**

A : set to regular expression

B : statement

C : Numeric data

D : ASCII data

**Q.no 36. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

**C : macro**

D : none of the mentioned

**Q.no 37. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

**C : first come, first served**

D : critical ratio

**Q.no 38. Assembler processes**

A : any language

**B : assembly language**

C : c language

D : high level language

**Q.no 39. Which one is a lexer Generator**

A : YACC

B : BISON

**C : FLEX**

D : Ibburg

**Q.no 40. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

**B : first executes the job that came in first in the queue**

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 41. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

**A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 42. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

**A : the instruction set architecture**

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 43. The translator which translates high level language to machine code is**

**A : compiler**

B : assembler

C : loader

D : interpreter

**Q.no 44. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 45. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 46. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 47. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 48. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 49. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 50. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 51. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 52. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 53. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 54. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 55. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

**C : PL domain and execution domain**

D : PL domain only

**Q.no 56. Static memory allocation is typically performed during**

**A : compilation**

B : execution

C : loading

D : linking

**Q.no 57. An assembler is**

A : programming language dependent

B : syntax dependant

**C : machine dependant**

D : data dependant

**Q.no 58. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

**A : Identifier**

B : Number

C : Keyword

D : operator

**Q.no 59. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 60. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 1. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 2. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 3. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 4. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 5. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

C : A stream of tokens

D : A parse tree

**Q.no 6. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 7. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

B : File system

C : Directory management

D : Scheduling and control

**Q.no 8. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 9. In priority scheduling algorithm**

A : CPU is allocated to the process with highest priority

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 10. which of the following is not a type of translator?**

A : assembler

B : compiler

**C : loader**

D : interpreter

**Q.no 11. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

**C : Interrupts**

D : DMA

**Q.no 12. Which technique is used for temporarily removing inactive programs from the memory of computer system**

**A : Swapping**

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 13. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 14. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 15. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 16. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 17. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 18. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 19. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

D : Loader

**Q.no 20. The end of a macro can be represented by the directive**

A : END

B : ENDS

C : MEND

D : ENDD

**Q.no 21. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 22. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 23. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 24. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 25. Way of specifying arguments in instruction is**

A : instruction format

**B : addressing modes**

C : both 1 & 2

D : function

**Q.no 26. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 27. The offset 'd' of the logical address must be**

A : greater than segment limit

**B : between 0 and segment limit**

C : between 0 and the segment number

D : greater than the segment number

**Q.no 28. In segmentation, each address is specified by**

**A : a segment number & offset**

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 29. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

C : valid – invalid

D : access

**Q.no 30. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

D : protection bit with each page

**Q.no 31. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 32. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 33. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 34. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 35. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

**C : generates an error**

D : something else

**Q.no 36. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 37. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

**C : MACRO**

D : none of the mentioned

**Q.no 38. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 39. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 40. A self relocating program in one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself perform the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 41. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 42. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 43. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 44. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 45. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 46. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 47. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 48. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 & 3

**Q.no 49. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 50. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 51. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B : A program that appears to execute a source program as if it were machine language**

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 52. A grammar that produces more than one parse tree for some sentence is called**

**A : Ambiguous**

B : Unambiguous

C : Regular

D : None of these

**Q.no 53. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

**C : free-behind**

D : add-front

**Q.no 54. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 55. In a two pass assembler the object code generation is done during the ?**

**A : Second pass**

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 56. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

**C : the page is in memory**

D : the page is not in memory

**Q.no 57. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 58. How Sequential access method works on random access devices.**

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 59. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 60. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

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**Answer for Question No 1. is b**

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**Answer for Question No 2. is d**

---

**Answer for Question No 3. is a**

---

**Answer for Question No 4. is d**

---

**Answer for Question No 5. is a**

---

**Answer for Question No 6. is b**

---

**Answer for Question No 7. is a**

---

**Answer for Question No 8. is c**

---

**Answer for Question No 9. is c**

---

**Answer for Question No 10. is a**

---

**Answer for Question No 11. is d**

---

**Answer for Question No 12. is c**

---

**Answer for Question No 13. is d**

---

**Answer for Question No 14. is a**

---

**Answer for Question No 15. is b**

---

**Answer for Question No 16. is a**

---

**Answer for Question No 17. is b**

---

**Answer for Question No 18. is b**

---

**Answer for Question No 19. is a**

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**Answer for Question No 20. is a**

---

**Answer for Question No 21. is a**

---

**Answer for Question No 22. is b**

---

**Answer for Question No 23. is c**

---

**Answer for Question No 24. is b**

---

**Answer for Question No 25. is d**

---

**Answer for Question No 26. is b**

---

**Answer for Question No 27. is c**

---

**Answer for Question No 28. is b**

---

**Answer for Question No 29. is b**

---

**Answer for Question No 30. is b**

---

**Answer for Question No 31. is b**

---

**Answer for Question No 32. is d**

---

**Answer for Question No 33. is c**

---

**Answer for Question No 34. is a**

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**Answer for Question No 35. is a**

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**Answer for Question No 36. is c**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is b**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is a**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is a**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is c**

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**Answer for Question No 48. is c**

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**Answer for Question No 49. is b**

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**Answer for Question No 50. is c**

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**Answer for Question No 51. is b**

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**Answer for Question No 52. is b**

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**Answer for Question No 53. is d**

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**Answer for Question No 54. is b**

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**Answer for Question No 55. is c**

---

**Answer for Question No 56. is a**

---

**Answer for Question No 57. is c**

---

**Answer for Question No 58. is a**

---

**Answer for Question No 59. is d**

---

**Answer for Question No 60. is a**

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**Answer for Question No 1. is c**

---

**Answer for Question No 2. is a**

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**Answer for Question No 3. is a**

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**Answer for Question No 4. is d**

---

**Answer for Question No 5. is c**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is b**

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**Answer for Question No 8. is b**

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**Answer for Question No 9. is a**

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**Answer for Question No 10. is c**

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**Answer for Question No 11. is c**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is b**

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**Answer for Question No 14. is c**

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**Answer for Question No 15. is b**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is b**

---

**Answer for Question No 18. is c**

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**Answer for Question No 19. is d**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is c**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is c**

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**Answer for Question No 24. is b**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is b**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is c**

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**Answer for Question No 30. is d**

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**Answer for Question No 31. is d**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is a**

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**Answer for Question No 35. is c**

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**Answer for Question No 36. is a**

---

**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is d**

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**Answer for Question No 44. is b**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is c**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is b**

---

**Answer for Question No 50. is c**

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**Answer for Question No 51. is b**

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**Answer for Question No 52. is a**

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**Answer for Question No 53. is c**

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**Answer for Question No 54. is c**

---

**Answer for Question No 55. is a**

---

**Answer for Question No 56. is c**

---

**Answer for Question No 57. is b**

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**Answer for Question No 58. is a**

---

**Answer for Question No 59. is b**

---

**Answer for Question No 60. is a**

---

OM PHAT SWH

Total number of questions : 60

PWD10886\_SYSTEMS PROGRAMMING AND OPERATING SYSTEM

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
- 2) Attempt any 50 questions out of 60.
- 3) Use of calculator is allowed.
- 4) Each question carries 1 Mark.
- 5) Specially abled students are allowed 20 minutes extra for examination.
- 6) Do not use pencils to darken answer.
- 7) Use only black/blue ball point pen to darken the appropriate circle.
- 8) No change will be allowed once the answer is marked on OMR Sheet.
- 9) Rough work shall not be done on OMR sheet or on question paper.
- 10) Darken ONLY ONE CIRCLE for each answer.

---

**Q.no 1. Which of the following is not an intermediate code form?**

- A : Postfix notation
- B : Syntax trees
- C : Three address codes
- D : Prefix notation**

**Q.no 2. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

- A : all process
- B : currently running process**
- C : parent process
- D : init process

### **Q.no 3. In priority scheduling algorithm**

- A : CPU is allocated to the process with highest priority
- B : CPU is allocated to the process with lowest priority
- C : Equal priority processes can not be scheduled
- D : Equal priority processes can not be scheduled parallelly

### **Q.no 4. Examples of system program includes**

- A : Ticket booking system
- B : Banking software
- C : Online shopping program
- D : Operating System

### **Q.no 5. LRU stands for?**

- A : Less Recently used
- B : Least Recurrently used
- C : Least Randomly used
- D : Least Recently used

### **Q.no 6. Time sharing system is implemented using**

- A : FCFS
- B : SJF
- C : RR
- D : priority

### **Q.no 7. In which of the following page replacement policies Balady's anomaly occurs?**

- A : FIFO
- B : LRU
- C : LFU
- D : NRU

**Q.no 8. When expression sum=3+2 is tokenized then what is the token category of 3**

- A : Identifier
  - B : Assignment operator
  - C : Integer Literal**
  - D : Addition Operator
- Q.no 9. The system is notified of a read or write operation by**
- A : Appending an extra bit of the address
  - B : Enabling the read or write bits of the devices
  - C : Raising an appropriate interrupt signal
  - D : Sending a special signal along the BUS**
- Q.no 10. It is used as an index into the page table.**
- A : frame bit
  - B : page number**
  - C : page offset
  - D : frame offset
- Q.no 11. A model statement contains call for another macro is called as**
- A : referential macro call
  - B : nested macro call**
  - C : inbuilt macro call
  - D : inherited macro call
- Q.no 12. Assembly language programs are written using**
- A : Hex code
  - B : Mnemonics**
  - C : ASCII code
  - D : C Language

**Q.no 13. The data-in register of I/O port is**

- A : Read by host to get input
- B : Read by controller to get input
- C : Written by host to send output
- D : Written by host to start a command

**Q.no 14. Which of the following is used for grouping of characters into tokens?**

- A : Parser
- B : Code optimization
- C : Code generator
- D : Lexical analyser

**Q.no 15. Which of the following type of software should be used if you need to create,edit and print document ?**

- A : word proccessor
- B : spreadsheet
- C : desktop publishing
- D : Unix

**Q.no 16. LR stands for**

- A : Left to right
- B : Left to right reduction
- C : Right to left
- D : Left to right and right most derivation in reverse

**Q.no 17. which algo. Is nonpreemptive**

- A : SJF-P
- B : FCFS
- C : RR
- D : Priority

**Q.no 18. The process wherein the processor constantly checks the status flags is called as**

- A : Polling
- B : Inspection
- C : Reviewing
- D : Echoing

**Q.no 19. On a movable head system, the time it takes to position the head at the track is known as**

- A : seek time
- B : rotational delay
- C : access time
- D : Transfer time

**Q.no 20. Effective access time is directly proportional to**

- A : memory access time
- B : page-fault rate
- C : hit ratio
- D : none of the mentioned

**Q.no 21. A self relocating program is one which**

- A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation
- B : consists of a program and relevant information for its relocation
- C : one itself performs the relocation of its address sensitive positions
- D : Both 1 & 2

**Q.no 22. The real difficulty with SJF in short term scheduling is**

- A : it is too good an algorithm
- B : knowing the length of the next CPU request
- C : it is too complex to understand

D : it is too complex to implement

**Q.no 23. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 24. The offset 'd' of the logical address must be**

A : greater than segment limit

B : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 25. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 26. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

C : MACRO

D : none of the mentioned

**Q.no 27. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 28. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 29. Format of macro call is**

A : <macro name> [<actual parameter spec>,...]

B : <macro name> [<formal parameter spec>,...]

C : <macro name>

D : <call macro>

**Q.no 30. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 31. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 32. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

C : valid – invalid

D : access

**Q.no 33. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 34. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 35. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

D : Both A and B

**Q.no 36. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 37. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 38. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 39. To obtain better memory utilization, dynamic loading is used. With dynamic loading, a routine is not loaded until it is called. For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 40. On free space management has the advantages that it is relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 41. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 42. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 43. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 44. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 45. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 46. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 47. The translator which translates high level language to machine code is**

- A : compiler
- B : assembler
- C : loader
- D : interpreter

**Q.no 48. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

- A : the instruction set architecture
- B : page size
- C : physical memory size
- D : number of processes in memory

**Q.no 49. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

- A : write ahead
- B : read ahead
- C : free-behind
- D : add-front

**Q.no 50. If linked origin is not equal to translated address then relocation is performed by**

- A : Absolute Loader
- B : Loader
- C : Linker
- D : Assembler

**Q.no 51. Forward reference table(FRT) is arranged like -**

- A : Stack
- B : Queue
- C : Linked list

D : Double linked list

**Q.no 52. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 53. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 54. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 55. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 56. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 57. How Sequential access method works on random access devices.**

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 58. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 59. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 60. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 1. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 2. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

B : blocking I/O

C : asynchronous I/O

D : synchronous I/O

**Q.no 3. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 4. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

C : syntax analysis

D : code optimization

**Q.no 5. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 6. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

C : A stream of tokens

D : A parse tree

**Q.no 7. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 8. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 9. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 10. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 11. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 12. which of the following is not a type of translator?**

A : assembler

B : compiler

C : loader

D : interpreter

**Q.no 13. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 14. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 15. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

D : Both 1 & 3

**Q.no 16. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 17. The end of a macro can be represented by the directive**

A : END

B : ENDS

C : MEND

D : ENDD

**Q.no 18. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 19. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 20. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 21. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 22. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 23. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 24. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 25. Pass-1 of two pass assembler is used for**

A : synthesizing code

B : gathering information

C : processing macro

D : expanding macro

**Q.no 26. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 27. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 28. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 29. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 30. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 31. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

B : Preemptive scheduling

C : Shortest job first

D : First come First served

**Q.no 32. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 33. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 34. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 35. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 36. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Iburg

**Q.no 37. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 38. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 39. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 40. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 41. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 42. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 43. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 44. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 45. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 46. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 47. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 48. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 49. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 50. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 51. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 52. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 53. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 54. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 55. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 56. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 57. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 58. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 59. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 60. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 1. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 2. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 3. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 4. Which of the following is not an intermediate code form?**

- A : Postfix notation
- B : Syntax trees
- C : Three address codes
- D : Prefix notation

**Q.no 5. Expansion time variables are used**

- A : Before expansion of macro calls
- B : only during expansion of macro calls
- C : After expansion of macro calls
- D : Any one of the above

**Q.no 6. Output file of Lex is \_\_\_\_ , if the input file is Myfile.**

- A : Myfile.e
- B : Myfile.yy.c
- C : Myfile.lex
- D : Myfile.obj

**Q.no 7. The memory allocation scheme subject to “external” fragmentation is**

- A : segmentation
- B : swapping
- C : pure demand paging
- D : multiple fixed contiguous partitions

**Q.no 8. Nested Macro calls are expanded using the**

- A : FIFO rule (First in first out)
- B : LIFO (Last in First out)
- C : FILO rule (First in last out)
- D : None of the above

**Q.no 9. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

- A : all process
- B : currently running process
- C : parent process
- D : init process

**Q.no 10. Virtual memory is**

- A : An extremely large main memory
- B : An extremely large secondary memory
- C : An illusion of extremely large main memory
- D : A type of memory used in super computers

**Q.no 11. Which statement declare the name of macro.**

- A : macro prototype
- B : macro definition
- C : macro identification
- D : macro call

**Q.no 12. The advantage of I/O mapped devices to memory mapped is**

- A : The former offers faster transfer of data
- B : The devices connected using I/O mapping have a bigger buffer space
- C : The devices have to deal with fewer address lines
- D : No advantage as such

**Q.no 13. Which of the following system software resides in main memory always ?**

- A : Text editor
- B : Assembler
- C : Linker
- D : Loader

**Q.no 14. A macro can be defined at**

- A : beginning of a program
- B : end of a program
- C : after initialisation of program
- D : anywhere in a program

**Q.no 15. Page fault frequency in an operating system is reduced when the**

- A : processes tend to the I/O-bound
- B : size of pages is reduced
- C : processes tend to be CPU-bound
- D : locality of reference is applicable to the process

**Q.no 16. The usual BUS structure used to connect the I/O devices is**

- A : Star BUS structure
- B : Multiple BUS structure
- C : Single BUS structure
- D : Node to Node BUS structure

**Q.no 17. To access services from OS, an interface is provided Called as**

- A : System call
- B : API
- C : library
- D : shell

**Q.no 18. LRU stands for?**

- A : Less Recently used
- B : Least Recurrently used
- C : Least Randomly used
- D : Least Recently used

**Q.no 19. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

B : File system

C : Directory management

D : Scheduling and control

**Q.no 20. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

B : ready queue

C : cpu

D : secondary storage

**Q.no 21. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 22. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 23. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 24. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 25. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 26. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 27. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 28. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 29. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 30. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 31. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 32. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

B : Preemptive scheduling

C : All of the mentioned

D : processes are classified into groups

**Q.no 33. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 34. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 35. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 36. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 37. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 38. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

D : protection bit with each page

**Q.no 39. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 40. Which of the following isn't a part of the file directory?**

A : Attributes

B : Protocol

C : Location

D : Ownership

**Q.no 41. How Sequential access method works on random access devices.**

A : works well

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 42. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 43. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 44. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 45. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 46. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 47. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 48. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 49. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 50. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 51. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 52. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

- A : Bit tables
- B : Chained Free Portions
- C : Indexing
- D : Free Block List

**Q.no 53. The translator which translates high level language to machine code is**

- A : compiler
- B : assembler
- C : loader
- D : interpreter

**Q.no 54. The FCFS algorithm is particularly troublesome for**

- A : time sharing systems
- B : multiprogramming systems
- C : multiprocessor systems
- D : operating systems

**Q.no 55. The valid – invalid bit, in this case, when valid indicates?**

- A : the page is not legal
- B : the page is illegal
- C : the page is in memory
- D : the page is not in memory

**Q.no 56. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

- A : the instruction set architecture
- B : page size
- C : physical memory size

D : number of processes in memory

**Q.no 57. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 58. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 59. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 60. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 1. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 2. On a movable head system, the time it takes to position the head at the track is known as**

A : seek time

B : rotational delay

C : access time

D : Transfer time

**Q.no 3. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 4. The pager concerns with the**

A : entire thread

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 5. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 6. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 7. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 8. In priority scheduling algorithm**

A : CPU is allocated to the process with highest priority

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 9. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

C : RU policy (Recurrently use)

D : Optimal page replacement policy

**Q.no 10. which of the following is not a type of translator?**

A : assembler

B : compiler

C : loader

D : interpreter

**Q.no 11. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 12. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 13. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

B : Logical I/O

C : Device I/O

D : Scheduling and control

**Q.no 14. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 15. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 16. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 17. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 18. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 19. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 20. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 21. The offset ‘d’ of the logical address must be**

- A : greater than segment limit
- B : between 0 and segment limit
- C : between 0 and the segment number
- D : greater than the segment number

**Q.no 22. What is Scheduling?**

- A : allowing a job to use the processor
- B : making proper use of processor
- C : all of the mentioned
- D : none of the mentioned

**Q.no 23. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

- A : Leftmost derivation
- B : Leftmost derivation traced out in reverse
- C : Rightmost derivation
- D : ightmost derivation traced out in reverse

**Q.no 24. A self relocating program in one which**

- A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation
- B : consists of a program and relevant information for its relocation
- C : one itself perform the relocation of its address sensitive positions
- D : Both 1 & 2

**Q.no 25. Pass-1 of two pass assembler is used for**

- A : synthesizing code
- B : gathering information
- C : processing macro

D : expanding macro

**Q.no 26. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 27. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 28. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 29. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 30. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 31. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

B : Shortest service time first

C : Priority by process

D : Random scheduling

**Q.no 32. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 33. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 34. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 35. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : . Semantic analysis

D : Structure analysis

**Q.no 36. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 37. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 38. The time taken to move the disk arm to the desired cylinder is called the**

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B : random access time

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A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 40. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 41. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 42. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 43. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 44. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 45. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 46. An imperative statement**

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B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 47. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

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A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

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- B : execution domain and syntax domain
- C : PL domain and execution domain
- D : PL domain only

**Q.no 51. How Sequential access method works on random access devices.**

- A : works well
- B : doesnt work well
- C : maybe works well and doesnt work well
- D : none of the mentioned

**Q.no 52. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

- A : minimum
- B : average
- C : maximum
- D : approximate

**Q.no 53. Static memory allocation is typically performed during**

- A : compilation
- B : execution
- C : loading
- D : linking

**Q.no 54. The linker is**

- A : is same as the loader
- B : is required to create a load module
- C : is always used before programs are executed

D : translator

**Q.no 55. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 56. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 57. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

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**Q.no 58. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

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B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 60. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 1. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 2. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

**Q.no 3. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 4. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 5. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

**Q.no 6. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 7. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

D : Loader

**Q.no 8. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 9. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

B : File system

C : Directory management

D : Scheduling and control

**Q.no 10. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 11. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

C : The devices have to deal with fewer address lines

D : No advantage as such

**Q.no 12. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 13. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 14. SJF can be**

- A : preemptive only
- B : nonpreemptive only
- C : either preemptive or nonpreemptive
- D : sequential

**Q.no 15. The output of a lexical analyzer is**

- A : Machine code
- B : Intermediate code
- C : A stream of tokens
- D : A parse tree

**Q.no 16. Examples of system program includes**

- A : Ticket booking system
- B : Banking software
- C : Online shopping program
- D : Operating System

**Q.no 17. Virtual memory is**

- A : An extremely large main memory
- B : An extremely large secondary memory
- C : An illusion of extremely large main memory
- D : A type of memory used in super computers

**Q.no 18. Which statement declare the name of macro.**

- A : macro prototype
- B : macro definition
- C : macro identification
- D : macro call

**Q.no 19. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 20. Which technique is used for temporarily removing inactive programs from the memory of computer system**

A : Swapping

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 21. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

B : Preemptive scheduling

C : Shortest job first

D : First come First served

**Q.no 22. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 23. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

B : Indexed allocation

C : Contiguous allocation

D : Variable allocation

**Q.no 24. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 25. Format of macro call is**

A : <macro name> [<actual parameter spec>,...]

B : <macro name> [<formal parameter spec>,...]

C : <macro name>

D : <call macro>

**Q.no 26. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 27. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 28. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 29. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 30. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 31. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 32. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 33. Each entry in a translation lookaside buffer (TLB) consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 34. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 35. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Iburg

**Q.no 36. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 37. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

D : defining a macro

**Q.no 38. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 39. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 40. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 41. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 42. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 43. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 44. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 45. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 46. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 47. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 48. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : **Linked list**

D : Double linked list

**Q.no 49. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : **Both START and ORIGIN**

**Q.no 50. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : **the page is in memory**

D : the page is not in memory

**Q.no 51. Using a pager**

A : increases the swap time

B : decreases the swap time

C : **decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 52. The translator which translates high level language to machine code is**

A : **compiler**

B : assembler

C : loader

D : interpreter

**Q.no 53. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 54. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 55. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 56. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 57. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 58. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 59. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 60. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

Seat No -

1

Total number of questions : 60

## PWD10886\_SYSTEMS PROGRAMMING AND OPERATING SYSTEM

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
- 2) Attempt any 50 questions out of 60.
- 3) Use of calculator is allowed.
- 4) Each question carries 1 Mark.
- 5) Specially abled students are allowed 20 minutes extra for examination.
- 6) Do not use pencils to darken answer.
- 7) Use only black/blue ball point pen to darken the appropriate circle.
- 8) No change will be allowed once the answer is marked on OMR Sheet.
- 9) Rough work shall not be done on OMR sheet or on question paper.
- 10) Darken ONLY ONE CIRCLE for each answer.

---

**Q.no 1. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 2. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

**D : anywhere in a program**

**Q.no 3. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

**D : Sending a special signal along the BUS**

**Q.no 4. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 5. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

**C : To indicate the starting position in memory, where the program block is to be stored**

D : To list the locations of all the registers used

**Q.no 6. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 7. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use**

D : Optimal page replacement policy

**Q.no 8. Which of the following type of software should be used if you need to create, edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 9. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 10. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

A : Myfile.e

B : Myfile.yy.c

C : Myfile.lex

D : Myfile.obj

**Q.no 11. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

B : Logical I/O

C : Device I/O

D : Scheduling and control

**Q.no 12. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 13. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 14. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

D : Operating System

**Q.no 15. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 16. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 17. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 18. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 19. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 20. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 21. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 22. Each entry in a translation lookaside buffer (TL) consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 23. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 24. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 25. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 26. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 27. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 28. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 29. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 30. Which of the following derivation a top-down parser use while parsing an input string?**

The input is assumed to be scanned in left to right order ?

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 31. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 32. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 33. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 34. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 35. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 36. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 37. Which of the following table is used to identify macro calls?**

**A : Macro Name table**

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 38. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 39. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 40. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 41. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 42. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 43. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 44. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 45. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 46. An assembler is**

A : programming language dependent

B : syntax dependant

**C : machine dependant**

D : data dependant

**Q.no 47. The translator which translates high level language to machine code is**

**A : compiler**

B : assembler

C : loader

D : interpreter

**Q.no 48. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 49. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 50. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 51. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 52. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 53. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 54. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

**D : Free Block List**

**Q.no 55. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 56. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

**D : yet another compiler compiler**

**Q.no 57. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 58. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 59. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 60. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

---

**Answer for Question No 1. is b**

---

**Answer for Question No 2. is d**

---

**Answer for Question No 3. is d**

---

**Answer for Question No 4. is c**

---

**Answer for Question No 5. is c**

---

**Answer for Question No 6. is d**

---

**Answer for Question No 7. is c**

---

**Answer for Question No 8. is a**

---

**Answer for Question No 9. is a**

---

**Answer for Question No 10. is b**

---

**Answer for Question No 11. is b**

---

**Answer for Question No 12. is b**

---

**Answer for Question No 13. is a**

---

**Answer for Question No 14. is d**

---

**Answer for Question No 15. is b**

---

**Answer for Question No 16. is b**

---

**Answer for Question No 17. is b**

---

**Answer for Question No 18. is b**

---

**Answer for Question No 19. is a**

---

**Answer for Question No 20. is a**

---

**Answer for Question No 21. is d**

---

**Answer for Question No 22. is a**

---

**Answer for Question No 23. is c**

---

**Answer for Question No 24. is c**

---

**Answer for Question No 25. is b**

---

**Answer for Question No 26. is a**

---

**Answer for Question No 27. is c**

---

**Answer for Question No 28. is a**

---

**Answer for Question No 29. is a**

---

**Answer for Question No 30. is a**

---

**Answer for Question No 31. is a**

---

**Answer for Question No 32. is b**

---

**Answer for Question No 33. is b**

---

**Answer for Question No 34. is a**

---

**Answer for Question No 35. is c**

---

**Answer for Question No 36. is b**

---

**Answer for Question No 37. is a**

---

**Answer for Question No 38. is c**

---

**Answer for Question No 39. is b**

---

**Answer for Question No 40. is d**

---

**Answer for Question No 41. is b**

---

**Answer for Question No 42. is c**

---

**Answer for Question No 43. is a**

---

**Answer for Question No 44. is c**

---

**Answer for Question No 45. is b**

---

**Answer for Question No 46. is c**

---

**Answer for Question No 47. is a**

---

**Answer for Question No 48. is c**

---

**Answer for Question No 49. is a**

---

**Answer for Question No 50. is c**

**Answer for Question No 51. is b**

**Answer for Question No 52. is b**

### **Answer for Question No 53. is a**

**Answer for Question No 54. is d**

**Answer for Question No 55. is c**

**Answer for Question No 56. is d**

**Answer for Question No 57. is a**

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Answer for Question No 60, is a

2

**Q.no 1. In assembler design memory allocation to symbols is done in**

- A : pass 1 of assembler
- B : pass 2 of assembler
- C : In both the passes
- D : at the time of synthesis

**Q.no 2. The usual BUS structure used to connect the I/O devices is**

- A : Star BUS structure
- B : Multiple BUS structure
- C : Single BUS structure
- D : Node to Node BUS structure

**Q.no 3. Task of the lexical analysis phase is**

- A : to parse the source program into basic elements or tokens of the language
- B : checks that given statement is syntactically correct or not
- C : removes comments and white spaces
- D : Both 1 & 3

**Q.no 4. It is used as an index into the page table.**

- A : frame bit
- B : page number
- C : page offset
- D : frame offset

**Q.no 5. which algo. Is nonpreemptive**

- A : SJF-P
- B : FCFS
- C : RR
- D : Priority

**Q.no 6. which of the following is not a type of translator?**

A : assembler

B : compiler

C : loader

D : interpreter

**Q.no 7. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 8. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 9. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 10. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 11. A model statement contains call for another macro is called as**

A : referential macro call

**B : nested macro call**

C : inbuilt macro call

D : inherited macro call

**Q.no 12. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

**D : Least Recently used**

**Q.no 13. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

**A : first-come, first-served scheduling**

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 14. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

**C : syntax analysis**

D : code optimization

**Q.no 15. On a movable head system, the time it takes to position the head at the track is known as**

**A : seek time**

B : rotational delay

C : access time

D : Transfer time

**Q.no 16. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

**B : LIFO (Last in First out)**

C : FILO rule (First in last out)

D : None of the above

**Q.no 17. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

**C : An illusion of extremely large main memory**

D : A type of memory used in super computers

**Q.no 18. In priority scheduling algorithm**

**A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 19. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

**D : Left to right and right most derivation in reverse**

**Q.no 20. In which of the following page replacement policies Balady's anomaly occurs?**

**A : FIFO**

B : LRU

C : LFU

D : NRU

**Q.no 21. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 22. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

**D : Both A and B**

**Q.no 23. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

**D : rotational latency**

**Q.no 24. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

**D : Demand paging**

**Q.no 25. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 26. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

**A : assigning ready processes to CPU**

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 27. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

**B : it helps to reduce the size of page table needed to implement the virtual address space of a process**

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 28. Which of the following isn't a part of the file directory?**

A : Attributes

**B : Protocol**

C : Location

D : Ownership

**Q.no 29. With round robin scheduling algorithm in a time shared system**

**A : using very large time slices converts it into First come First served scheduling algorithm**

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 30. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

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A : overwrites the word

B : overwrites the functionality

**C : generates an error**

D : something else

**Q.no 31. Lexemes can be referred to as**

A : elements of lexicography

**B : sequence of alphanumeric characters in a token**

C : lexical errors

D : none of the mentioned

**Q.no 32. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

**B : Syntax analysis**

C : . Semantic analysis

D : Structure analysis

**Q.no 33. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

**D : protection bit with each page**

**Q.no 34. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 35. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

**C : knowledge of both system and application programming**

D : knowledge of hardware

**Q.no 36. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

**A : Bit table**

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 37. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 38. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

**B : Indexed allocation**

C : Contiguous allocation

D : Variable allocation

**Q.no 39. Way of specifying arguments in instruction is**

A : instruction format

**B : addressing modes**

C : both 1 & 2

D : function

**Q.no 40. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

**A : Simultaneous access**

B : Compaction

C : External Fragmentation

D : Division

**Q.no 41. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B : A program that appears to execute a source**

program as if it were machine language

C : A program that automate the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 42. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 43. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 44. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 45. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 46. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 47. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 48. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 49. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 50. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

**A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 51. How Sequential access method works on random access devices.**

**A : works well**

B : doesn't work well

C : maybe works well and doesnt work well

D : none of the mentioned

### **Q.no 52. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

### **Q.no 53. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 54. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 55. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

**C : Stack & Counters**

D : Registers

**Q.no 56. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

D : both 1 & 3

**Q.no 57. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 58. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 59. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 60. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Answer for Question No 1. is a**

**Answer for Question No 2. is c**

**Answer for Question No 3. is d**

**Answer for Question No 4. is b**

**Answer for Question No 5. is b**

**Answer for Question No 6. is c**

**Answer for Question No 7. is a**

**Answer for Question No 8. is a**

**Answer for Question No 9. is c**

**Answer for Question No 10. is a**

**Answer for Question No 11. is b**

**Answer for Question No 12. is d**

**Answer for Question No 13. is a**

**Answer for Question No 14. is c**

**Answer for Question No 15. is a**

**Answer for Question No 16. is b**

**Answer for Question No 17. is c**

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**Answer for Question No 18. is a**

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**Answer for Question No 19. is d**

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**Answer for Question No 20. is a**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is d**

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**Answer for Question No 23. is d**

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**Answer for Question No 24. is d**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is a**

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**Answer for Question No 30. is c**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is d**

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**Answer for Question No 34. is b**

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**Answer for Question No 35. is c**

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**Answer for Question No 36. is a**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is b**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is a**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is c**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is a**

**Answer for Question No 52. is b**

**Answer for Question No 53. is d**

**Answer for Question No 54. is b**

**Answer for Question No 55. is c**

**Answer for Question No 56. is b**

**Answer for Question No 57. is a**

**Answer for Question No 58. is a**

**Answer for Question No 59. is b**

**Answer for Question No 60. is a**

3

**Q.no 1. A macro can be defined at**

- A : beginning of a program
- B : end of a program
- C : after initialisation of program
- D : anywhere in a program**

**Q.no 2. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

- A : job queue
- B : ready queue**
- C : execution queue
- D : process queue

**Q.no 3. The method which offers higher speeds of I/O transfers is**

- A : Interrupts
- B : Memory mapping
- C : Program-controlled I/O
- D : DMA**

**Q.no 4. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

- A : Exceptions
- B : Signal handling
- C : Interrupts**
- D : DMA

**Q.no 5. Assembly language programs are written using**

- A : Hex code
- B : Mnemonics**
- C : ASCII code

D : C Language

**Q.no 6. The pager concerns with the****A : entire thread**

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 7. Which statement declare the name of macro.****A : macro prototype**

B : macro definition

C : macro identification

D : macro call

**Q.no 8. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

**D : locality of reference is applicable to the process****Q.no 9. Expansion time variables are used**

A : Before expansion of macro calls

**B : only during expansion of macro calls**

C : After expansion of macro calls

D : Any one of the above

**Q.no 10. Literal table stores****A : Numbers from code**

B : variables from code

C : instruction

D : Opcodes

**Q.no 11. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 12. Which technique is used for temporarily removing inactive programs from the memory of computer system**

A : Swapping

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 13. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 14. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 15. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 16. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 17. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

C : The devices have to deal with fewer address lines

D : No advantage as such

**Q.no 18. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 19. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 20. Which of the following type of software should be used if you need to create, edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 21. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 22. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 23. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 24. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 25. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 26. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 27. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

**C : valid – invalid**

D : access

**Q.no 28. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

**B : Shortest Job First**

C : Earliest Deadline First

D : Longest Job First

**Q.no 29. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

**C : extension & name**

D : type & extension

**Q.no 30. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

**B : SJF – Shortest Job First**

C : RR – Round Robin

D : priority

**Q.no 31. which of these is not a pseudocode/assembler directive**

A : USING

**B : BALR**

C : DROP

D : ORG

**Q.no 32. Pass-1 of two pass assmbler is used for**

A : synthesizing code

**B : gathering information**

C : processing macro

D : expanding macro

**Q.no 33. Assembler processes**

A : any language

**B : assembly language**

C : c language

D : high level language

**Q.no 34. A process is thrashing if****A : it is spending more time paging than executing**

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 35. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

**D : defining a macro****Q.no 36. Linking is process of binding**

A : Internal part of a program

B : external functional call

**C : External reference to the correct link time address**

D : None of the above

**Q.no 37. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

**B : first executes the job that came in first in the queue**

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 38. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

**C : bridge gap between programmer and system**

D : bridge gap between different systems

**Q.no 39. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

**B : knowing the length of the next CPU request**

C : it is too complex to understand

D : it is too complex to implement

**Q.no 40. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

**C : macro**

D : none of the mentioned

**Q.no 41. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 42. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

**C : PL domain and execution domain**

D : PL domain only

**Q.no 43. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 44. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 45. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

**C : free-behind**

D : add-front

**Q.no 46. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

**D : yet another compiler compiler**

**Q.no 47. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 48. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

**C : FIFO**

D : Both optimal replacement and FIFO

**Q.no 49. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

**D : Free Block List**

**Q.no 50. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

**A : the instruction set architecture**

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 51. Using a pager**

A : increases the swap time

B : decreases the swap time

**C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 52. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 53. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 54. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 55. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automate the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 56. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 57. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 58.** These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 59.** The translator which translates high level language to machine code is

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 60.** The linker is

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

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**Answer for Question No 1. is d**

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**Answer for Question No 2. is b**

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**Answer for Question No 3. is d**

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**Answer for Question No 4. is c**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is a**

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**Answer for Question No 7. is a**

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**Answer for Question No 8. is d**

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**Answer for Question No 9. is b**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is c**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is d**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is d**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is c**

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**Answer for Question No 18.** is a

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**Answer for Question No 19.** is a

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**Answer for Question No 20.** is a

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**Answer for Question No 21.** is c

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**Answer for Question No 22.** is c

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**Answer for Question No 23.** is a

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**Answer for Question No 24.** is d

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**Answer for Question No 25.** is b

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**Answer for Question No 26.** is a

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**Answer for Question No 27.** is c

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**Answer for Question No 28.** is b

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**Answer for Question No 29.** is c

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**Answer for Question No 30.** is b

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**Answer for Question No 31.** is b

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**Answer for Question No 32.** is b

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**Answer for Question No 33.** is b

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**Answer for Question No 34.** is a

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**Answer for Question No 35. is d**

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**Answer for Question No 36. is c**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is c**

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**Answer for Question No 39. is b**

---

**Answer for Question No 40. is c**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is c**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is d**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is c**

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**Answer for Question No 49. is d**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is c**

**Answer for Question No 52. is c**

**Answer for Question No 53. is c**

**Answer for Question No 54. is c**

**Answer for Question No 55. is b**

**Answer for Question No 56. is a**

**Answer for Question No 57. is a**

**Answer for Question No 58. is b**

**Answer for Question No 59. is a**

**Answer for Question No 60. is b**

4

**Q.no 1. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

**B : currently running process**

C : parent process

D : init process

**Q.no 2. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

**B : Single buffer**

: Linear buffer D

: Circular buffer

**Q.no 3. Which of the following is used for grouping of characters into tokens?**

A : Parser

B : Code optimization

C : Code generator

**D : Lexical analyser**

**Q.no 4. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

**C : To indicate the starting position in memory, where the program block is to be stored**

D : To list the locations of all the registers used

**Q.no 5. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

C : An illusion of extremely large main memory

D : A type of memory used in super computers

**Q.no 6. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 7. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 8. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 9. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 10. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

B : blocking I/O

C : asynchronous I/O

D : synchronous I/O

**Q.no 11. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

**D : Prefix notation**

**Q.no 12. On a movable head system, the time it takes to position the head at the track is known as**

**A : seek time**

B : rotational delay

C : access time

D : Transfer time

**Q.no 13. Relocatable programs**

A : cannot be used with fixed partitions

**B : can be loaded almost anywhere in memory**

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 14. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

**B : virtual memory**

C : auxiliary memory

D : secondary memory

**Q.no 15. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

A : Myfile.e

**B : Myfile.yy.c**

C : Myfile.lex

D : Myfile.obj

**Q.no 16. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

**C : syntax analysis**

D : code optimization

**Q.no 17. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

**D : Left to right and right most derivation in reverse****Q.no 18. Which command gives dynamic view of process states**

A : PS

**B : TOP**

C : fork

D : kill

**Q.no 19. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use)

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use)**

D : Optimal page replacement policy

**Q.no 20. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

**C : A stream of tokens**

D : A parse tree

**Q.no 21. A multilevel page table is preferred in comparison to a single level page table for**

**translating virtual address to physical address because**

- A : it reduces the memory access time to read or write a memory location
- B : it helps to reduce the size of page table needed to implement the virtual address space of a process
- C : it is required by the translation lookaside buffer
- D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 22. In multilevel feedback scheduling algorithm**

- A : a process can move to a different classified ready queue
- B : classification of ready queue is permanent
- C : processes are not classified into groups
- D : processes are classified into groups

**Q.no 23. The offset ‘d’ of the logical address must be**

- A : greater than segment limit
- B : between 0 and segment limit
- C : between 0 and the segment number
- D : greater than the segment number

**Q.no 24. A self relocating program is one which**

- A : can not be made to execute in any area of storage other than the one designated for it at the time of its coding or translation
- B : consists of a program and relevant information for its relocation
- C : one itself performs the relocation of its address sensitive positions
- D : Both 1 & 2

**Q.no 25. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

- A : LOOK
- B : SCAN
- C : C-SCAN
- D : C-LOOK

**Q.no 26. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 27. in which Swap space exists**

A : cpu

B : primary memory

**C : secondary memory**

D : none of the mentioned

**Q.no 28. Absolute loader loads object code in memory from**

**A : Fixed location given by proframmer**

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 29. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

**C : knowledge of both system and application programming**

D : knowledge of hardware

**Q.no 30. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

**B : Indexed allocation**

C : Contiguous allocation

D : Variable allocation

**Q.no 31. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

**B : Syntax analysis**

C : . Semantic analysis

D : Structure analysis

**Q.no 32. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 33. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 34. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 35. Machine independent phase of the compiler is**

**A : syntax analysis and Lexical analysis**

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 36. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 37. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

**C : MACRO**

D : none of the mentioned

**Q.no 38. Shell is the exclusive feature of**

A : Dos

**B : Unix**

C : System software

D : Application software

**Q.no 39. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

**D : Both A and B**

**Q.no 40. Process are classified into different groups in**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 41. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 &amp; 3

**Q.no 42. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 43. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 44. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN****Q.no 45. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.****A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 46. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as****A : Semantic analysis**

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 47. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 48. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 49. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 50. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 51. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 &amp; 2

**Q.no 52. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM &amp; Registers

**C : Stack & Counters**

D : Registers

**Q.no 53. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 54. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.****A : Bit tables**

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 55. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 56. The translator which translates high level language to machine code is****A : compiler**

B : assembler

C : loader

D : interpreter

**Q.no 57. Using a pager**

- A : increases the swap time
- B : decreases the swap time
- C : decreases the swap time & amount of physical memory needed**
- D : increases the amount of physical memory needed

**Q.no 58. A grammar that produces more than one parse tree for some sentence is called**

- A : Ambiguous**
- B : Unambiguous
- C : Regular
- D : None of these

**Q.no 59. Forward reference table(FRT) is arranged like -**

- A : Stack
- B : Queue
- C : Linked list**
- D : Double linked list

**Q.no 60. An assembler is**

- A : programming language dependent
- B : syntax dependant
- C : machine dependant**
- D : data dependant

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**Answer for Question No 1. is b**

**Answer for Question No 2. is b**

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**Answer for Question No 3. is d**

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**Answer for Question No 4. is c**

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**Answer for Question No 5. is c**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is a**

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**Answer for Question No 8. is c**

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**Answer for Question No 9. is c**

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**Answer for Question No 10. is b**

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**Answer for Question No 11. is d**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is b**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is b**

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**Answer for Question No 16. is c**

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**Answer for Question No 17. is d**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is c**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is c**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is a**

**Answer for Question No 35. is a**

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**Answer for Question No 36. is d**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is d**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is d**

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**Answer for Question No 45. is a**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is c**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is b**

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**Answer for Question No 52. is c**

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**Answer for Question No 53. is b**

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**Answer for Question No 54. is a**

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**Answer for Question No 55. is b**

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**Answer for Question No 56. is a**

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**Answer for Question No 57. is c**

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**Answer for Question No 58. is a**

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**Answer for Question No 59. is c**

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**Answer for Question No 60. is c**

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5

**Q.no 1. The advantage of I/O mapped devices to memory mapped is**

- A : The former offers faster transfer of data
- B : The devices connected using I/O mapping have a bigger buffer space
- C : The devices have to deal with fewer address lines**
- D : No advantage as such

**Q.no 2. Page fault frequency in an operating system is reduced when the**

- A : processes tend to be I/O-bound
- B : size of pages is reduced
- C : processes tend to be CPU-bound
- D : locality of reference is applicable to the process**

**Q.no 3. The end of a macro can be represented by the directive**

- A : END
- B : ENDS
- C : MEND**
- D : ENDD

**Q.no 4. Expansion time variables are used**

- A : Before expansion of macro calls
- B : only during expansion of macro calls**
- C : After expansion of macro calls
- D : Any one of the above

**Q.no 5. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

- A : Physical organization
- B : File system**
- C : Directory management

D : Scheduling and control

**Q.no 6. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 7. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

**C : Interrupts**

D : DMA

**Q.no 8. The last statement of the source program should be**

A : Stop

B : Return

C : OP

**D : End**

**Q.no 9. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 10. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

**B : LIFO (Last in First out)**

C : FILO rule (First in last out)

D : None of the above

**Q.no 11. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

**D : All**

**Q.no 12. The data-in register of I/O port is**

**A : Read by host to get input**

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 13. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

**D : anywhere in a program**

**Q.no 14. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

**D : Sending a special signal along the BUS**

**Q.no 15. In memory-mapped I/O**

**A : The I/O devices and the memory share the same address space**

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 16. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 17. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 18. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 19. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 20. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 21. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 22. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 23. Which of the following isn't a part of the file directory?**

A : Attributes

B : Protocol

C : Location

D : Ownership

**Q.no 24. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 25. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 26. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

**C : Scanner**

D : Loader

**Q.no 27. Input of Lex is ?****A : set to regular expression**

B : statement

C : Numeric data

D : ASCII data

**Q.no 28. Which one is a lexer Generator**

A : YACC

B : BISON

**C : FLEX**

D : Ibburg

**Q.no 29. Each entry in a translation lookaside buffer (TL consists of****A : key**

B : value

C : bit value

D : constant

**Q.no 30. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

**D : defining a macro****Q.no 31. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

**B : first executes the job that came in first in the queue**

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 32. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 33. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

**D : Both 1 & 2**

**Q.no 34. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

**D : context free grammar**

**Q.no 35. Linking is process of binding**

A : Internal part of a program

B : external functional call

**C : External reference to the correct link time address**

D : None of the above

**Q.no 36. Way of specifying arguments in instruction is**

A : instruction format

**B : addressing modes**

C : both 1 & 2

D : function

**Q.no 37. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 38. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

**B : SJF – Shortest Job First**

C : RR – Round Robin

D : priority

**Q.no 39. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 40. A process is thrashing if**

**A : it is spending more time paging than executing**

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 41. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

**C : free-behind**

D : add-front

**Q.no 42. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 43. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 44. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 45. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 46. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

**A : Identifier**

B : Number

C : Keyword

D : operator

**Q.no 47. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 48.** These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 49.** How Sequential access method works on random access devices.

A : works well

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 50.** Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.

A : minimum

B : average

C : maximum

D : approximate

**Q.no 51.** Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 52. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 53. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 54. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 55. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 56. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 57. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 & 3

**Q.no 58. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

**C : FIFO**

D : Both optimal replacement and FIFO

**Q.no 59. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

**D : yet another compiler compiler**

**Q.no 60. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

**Answer for Question No 1. is c**

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**Answer for Question No 2. is d**

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**Answer for Question No 3. is c**

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**Answer for Question No 4. is b**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is a**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is d**

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**Answer for Question No 9. is d**

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**Answer for Question No 10. is b**

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**Answer for Question No 11. is d**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is d**

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**Answer for Question No 14. is d**

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**Answer for Question No 15. is a**

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**Answer for Question No 16. is a**

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**Answer for Question No 17. is b**

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**Answer for Question No 18. is c**

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**Answer for Question No 19. is b**

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**Answer for Question No 20. is b**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is d**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is c**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is c**

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**Answer for Question No 29. is a**

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**Answer for Question No 30. is d**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is d**

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**Answer for Question No 34. is d**

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**Answer for Question No 35. is c**

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**Answer for Question No 36. is b**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is b**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is c**

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**Answer for Question No 42. is b**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is c**

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**Answer for Question No 51. is a**

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**Answer for Question No 52. is b**

**Answer for Question No 53. is b**

**Answer for Question No 54. is b**

**Answer for Question No 55. is d**

## **Answer for Question No 56. is a**

**Answer for Question No 57. is b**

**Answer for Question No 58. is c**

### **Answer for Question No 59. is d**

**Answer for Question No 60. is b**

6

**Q.no 1. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 2. In priority scheduling algorithm**

**A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 3. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

**B : Single buffer**

C : Linear buffer

D : Circular buffer

**Q.no 4. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

**D : Prefix notation**

**Q.no 5. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

**C : A stream of tokens**

D : A parse tree

**Q.no 6. Which technique is used for temporarily removing inactive programs from the memory of computer system**

A : Swapping

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 7. which of the following is not a type of translator?**

A : assembler

B : compiler

C : loader

D : interpreter

**Q.no 8. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 9. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 10. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

B : ready queue

C : cpu

D : secondary storage

**Q.no 11. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 12. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 13. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

D : Both 1 & 3

**Q.no 14. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 15. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 16. SJF can be**

- A : preemptive only
- B : nonpreemptive only
- C : either preemptive or nonpreemptive**
- D : sequential

**Q.no 17. Literal table stores**

- A : Numbers from code**
- B : variables from code
- C : instruction
- D : Opcodes

**Q.no 18. A set of techniques that allow to execute a program which is not entirely in memory is called**

- A : demand paging
- B : virtual memory**
- C : auxiliary memory
- D : secondary memory

**Q.no 19. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

- A : Directory Management
- B : Logical I/O**
- C : Device I/O
- D : Scheduling and control

**Q.no 20. A process is moved to wait queue when I/O request is made with**

- A : non-blocking I/O
- B : blocking I/O**
- C : asynchronous I/O
- D : synchronous I/O

**Q.no 21. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 22. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : . Semantic analysis

D : Structure analysis

**Q.no 23. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 24. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 25. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 26. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 27. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

**B : Shortest Job First**

C : Earliest Deadline First

D : Longest Job First

**Q.no 28. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 29. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 30. Format of macro call is**

**A : <macro name> [<actual parameter spec>, ...]**

B : <macro name> [<formal parameter spec>, ...]

C : <macro name>

D : <call macro>

**Q.no 31. File type can be represented by**

**A : file extension**

B : file identifier

C : file name

D : none of the mentioned

**Q.no 32. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 33. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 34. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 35. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 36. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

B : Preemptive scheduling

C : Shortest job first

D : First come First served

**Q.no 37. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

**B : it helps to reduce the size of page table needed to implement the virtual address space of a process**

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 38. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

**C : extension & name**

D : type & extension

**Q.no 39. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

**B : SCAN**

C : C-SCAN

D : C-LOOK

**Q.no 40. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

**C : MACRO**

D : none of the mentioned

**Q.no 41. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 42. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

**D : Free Block List**

**Q.no 43. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 44. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 45. An assembler is**

A : programming language dependent

B : syntax dependant

**C : machine dependant**

D : data dependant

**Q.no 46. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

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**Q.no 47. A compiler bridges the semantic gap between .....**

- A : PL domain and storage domain
- B : execution domain and syntax domain
- C : PL domain and execution domain**
- D : PL domain only

**Q.no 48. Using a pager**

- A : increases the swap time
- B : decreases the swap time
- C : decreases the swap time & amount of physical memory needed**
- D : increases the amount of physical memory needed

**Q.no 49. The translator which translates high level language to machine code is**

- A : compiler**
- B : assembler
- C : loader
- D : interpreter

**Q.no 50. An edge from process Pi to Pj in a wait for graph indicates that**

- A : Pi is waiting for Pj to release a resource that Pi needs**
- B : Pj is waiting for Pi to release a resource that Pj needs
- C : Pi is waiting for Pj to leave the system
- D : Pj is waiting for Pi to leave the system

**Q.no 51. A grammar that produces more than one parse tree for some sentence is called**

- A : Ambiguous**
- B : Unambiguous
- C : Regular
- D : None of these

**Q.no 52. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 53. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 54. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 55. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 56. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 57. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 58. How Sequential access method works on random access devices.**

A : works well

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 59. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 60. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Answer for Question No 1. is b**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is d**

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**Answer for Question No 5. is c**

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**Answer for Question No 6. is a**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is a**

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**Answer for Question No 9. is a**

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**Answer for Question No 10. is b**

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**Answer for Question No 11. is a**

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**Answer for Question No 12. is b**

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**Answer for Question No 13. is d**

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**Answer for Question No 14. is c**

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**Answer for Question No 15. is a**

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**Answer for Question No 16. is c**

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**Answer for Question No 17. is a**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is b**

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**Answer for Question No 20. is b**

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**Answer for Question No 21. is c**

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**Answer for Question No 22. is b**

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**Answer for Question No 23. is a**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is c**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is a**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is d**

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**Answer for Question No 35. is a**

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**Answer for Question No 36. is b**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is c**

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**Answer for Question No 39. is b**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is d**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is c**

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**Answer for Question No 48. is c**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is a**

**Answer for Question No 52.** is a

**Answer for Question No 53.** is a

**Answer for Question No 54.** is c

**Answer for Question No 55.** is c

**Answer for Question No 56.** is c

**Answer for Question No 57.** is a

**Answer for Question No 58.** is a

**Answer for Question No 59.** is b

**Answer for Question No 60.** is b

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**Q.no 1. syntax analyzer or parser takes the input from a \_\_\_\_\_**

- A : Lexical analyser
- B : Syntactic Analyser
- C : Semantic Analyser
- D : None of the mentioned

**Q.no 2. On a movable head system, the time it takes to position the head at the track is known as**

- A : seek time
- B : rotational delay
- C : access time
- D : Transfer time

**Q.no 3. The process wherein the processor constantly checks the status flags is called as**

- A : Polling
- B : Inspection
- C : Reviewing
- D : Echoing

**Q.no 4. Which of the following type of software should be used if you need to create, edit and print document ?**

- A : word proccessor
- B : spreadsheet
- C : desktop publishing
- D : Unix

**Q.no 5. Which command gives dynamic veiw of process states**

- A : PS
- B : TOP
- C : fork
- D : kill

**Q.no 6. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

C : RU policy (Recurrently use

D : Optimal page replacement policy

### **Q.no 7. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

**D : All**

### **Q.no 8. A model statement contains call for another macro is called as**

A : referential macro call

**B : nested macro call**

C : inbuilt macro call

D : inherited macro call

### **Q.no 9. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

**D : DMA**

### **Q.no 10. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

**D : Operating System**

### **Q.no 11. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 12. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 13. The end of a macro can be represented by the directive**

A : END

B : ENDS

C : MEND

D : ENDD

**Q.no 14. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

D : locality of reference is applicable to the process

**Q.no 15. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 16. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

B : currently running process

C : parent process

D : init process

**Q.no 17. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

**D : anywhere in a program**

**Q.no 18. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 19. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

**C : To indicate the starting position in memory, where the program block is to be stored**

D : To list the locations of all the registers used

**Q.no 20. It is used as an index into the page table.**

A : frame bit

**B : page number**

C : page offset

D : frame offset

**Q.no 21. In multilevel feedback scheduling algorithm**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 22. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

**D : defining a macro**

**Q.no 23. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 24. Process are classified into different groups in**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 25. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

**B : first executes the job that came in first in the queue**

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 26. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

**B : user level thread**

C : process

D : priority Process

**Q.no 27. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 28. Each entry in a translation lookaside buffer (TL consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 29. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

D : protection bit with each page

**Q.no 30. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 31. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 32. Pass-1 of two pass assembler is used for**

A : synthesizing code

**B : gathering information**

C : processing macro

D : expanding macro

**Q.no 33. Lexemes can be referred to as**

A : elements of lexicography

**B : sequence of alphanumeric characters in a token**

C : lexical errors

D : none of the mentioned

**Q.no 34. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 35. which of these is not a pseudocode/assembler directive**

A : USING

**B : BALR**

C : DROP

D : ORG

**Q.no 36. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

**D : user programs can implement dynamic loading without any special support from hardware or operating system**

**Q.no 37. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 38. Which of the following table is used to identify macro calls?**

**A : Macro Name table**

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 39. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

**C : is in the process's logical address space**

D : is the system's physical address space

**Q.no 40. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

**D : Both 1 & 2**

**Q.no 41. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 42. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 43. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

**Q.no 44. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 45. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

**C : FIFO**

D : Both optimal replacement and FIFO

**Q.no 46. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

**A : Identifier**

B : Number

C : Keyword

D : operator

**Q.no 47. YACC stands for**

- A : yet accept compiler constructs
- B : yet accept compiler compiler
- C : yet another compiler constructs
- D : yet another compiler compiler**

**Q.no 48. The essential content(s) in each entry of a page table is/are**

- A : Virtual page number
- B : Page frame number**
- C : Both virtual page number and page frame number
- D : Access right information

**Q.no 49. Static memory allocation is typically performed during**

- A : compilation**
- B : execution
- C : loading
- D : linking

**Q.no 50. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

- A : resources currently available**
- B : processes that have previously been in the system
- C : resources currently allocated to each process
- D : future requests and releases of each process

**Q.no 51. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

- A : Bit tables
- B : Chained Free Portions**
- C : Indexing

D : Free Block List

**Q.no 52. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 53. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 54. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

**A : Semantic analysis**

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 55. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 56. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 & 3

**Q.no 57. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

**C : free-behind**

D : add-front

**Q.no 58. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 59. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 60. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

**C : Stack & Counters**

D : Registers

**Answer for Question No 1. is a**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is a**

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**Answer for Question No 4. is a**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is d**

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**Answer for Question No 8. is b**

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**Answer for Question No 9. is d**

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**Answer for Question No 10. is d**

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**Answer for Question No 11. is d**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is c**

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**Answer for Question No 14. is d**

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**Answer for Question No 15. is b**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is d**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is b**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is d**

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**Answer for Question No 23. is c**

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**Answer for Question No 24. is a**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is b**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is d**

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**Answer for Question No 30. is d**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is b**

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**Answer for Question No 35. is b**

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**Answer for Question No 36. is d**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is a**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is d**

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**Answer for Question No 41. is c**

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**Answer for Question No 42. is b**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is b**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is d**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is b**

**Answer for Question No 52. is b**

**Answer for Question No 53. is b**

### **Answer for Question No 54. is a**

### **Answer for Question No 55. is a**

### **Answer for Question No 56. is b**

### **Answer for Question No 57. is c**

### **Answer for Question No 58. is d**

**Answer for Question No 59. is c**

### **Answer for Question No 60. is c**

**Q.no 1. Output of pass 1 assembler is**

- A : object code
- B : intermediate code**
- C : assembly language code
- D : machine code

**Q.no 2. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

- A : Double buffer
- B : Single buffer**
- C : Linear buffer
- D : Circular buffer

**Q.no 3. Effective access time is directly proportional to**

- A : memory access time
- B : page-fault rate**
- C : hit ratio
- D : none of the mentioned

**Q.no 4. Which statement declare the name of macro.**

- A : macro prototype**
- B : macro definition
- C : macro identification
- D : macro call

**Q.no 5. LRU stands for?**

- A : Less Recently used
- B : Least Recurrently used
- C : Least Randomly used
- D : Least Recently used**

**Q.no 6. The system is notified of a read or write operation by**

- A : Appending an extra bit of the address
- B : Enabling the read or write bits of the devices
- C : Raising an appropriate interrupt signal
- D : Sending a special signal along the BUS**

**Q.no 7. The usual BUS structure used to connect the I/O devices is**

- A : Star BUS structure
- B : Multiple BUS structure
- C : Single BUS structure**
- D : Node to Node BUS structure

**Q.no 8. Which of the following is not an intermediate code form?**

- A : Postfix notation
- B : Syntax trees
- C : Three address codes
- D : Prefix notation**

**Q.no 9. To access services from OS, an interface is provided Called as**

- A : System call**
- B : API
- C : library
- D : shell

**Q.no 10. Time sharing system is implemented using**

- A : FCFS
- B : SJF
- C : RR**
- D : priority

**Q.no 11. Assembly language programs are written using**

- A : Hex code
- B : Mnemonics**

C : ASCII code

D : C Language

### **Q.no 12. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

### **Q.no 13. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

### **Q.no 14. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

### **Q.no 15. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

### **Q.no 16. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

B : blocking I/O

C : asynchronous I/O

D : synchronous I/O

**Q.no 17. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 18. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 19. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 20. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 21. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 22. Which of the following isn't a part of the file directory?**

A : Attributes

**B : Protocol**

C : Location

D : Ownership

**Q.no 23. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 24. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

**C : bridge gap between programmer and system**

D : bridge gap between different systems

**Q.no 25. The offset 'd' of the logical address must be**

A : greater than segment limit

**B : between 0 and segment limit**

C : between 0 and the segment number

D : greater than the segment number

**Q.no 26. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 27. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 28. A self relocating program is one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself performs the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 29. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 30. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 31. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

**B : SCAN**

C : C-SCAN

D : C-LOOK

**Q.no 32. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

A : overwrites the word

B : overwrites the functionality

**C : generates an error**

D : something else

**Q.no 33. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

**D : Both A and B****Q.no 34. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 35. What is Scheduling?****A : allowing a job to use the processor**

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 36. Loader is a program that****A : places programs into memory and prepares them for execution**

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appears to execute a source program as if it were machine language

**Q.no 37. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 38. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 39. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 40. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 41. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 42. An assembler is**

A : programming language dependent

B : syntax dependant

**C : machine dependant**

D : data dependant

**Q.no 43. The translator which translates high level language to machine code is**

**A : compiler**

B : assembler

C : loader

D : interpreter

**Q.no 44. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

**C : PL domain and execution domain**

D : PL domain only

**Q.no 45. A grammar that produces more than one parse tree for some sentence is called**

**A : Ambiguous**

B : Unambiguous

C : Regular

D : None of these

**Q.no 46. If the wait for graph contains a cycle**

A : then a deadlock does not exist

**B : then a deadlock exists**

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 47. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 48. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 49. How Sequential access method works on random access devices.**

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 50. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 51. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 52. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 53. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 54. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 55. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 56. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 57. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B : A program that appears to execute a source program as if it were machine language**

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 58. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

**C : the page is in memory**

D : the page is not in memory

**Q.no 59. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 60. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

**A : Semantic analysis**

B : Syntax analysis

C : Regular analysis

D : General analysis

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**Answer for Question No 1. is b**

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**Answer for Question No 2. is b**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is a**

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**Answer for Question No 5. is d**

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**Answer for Question No 6. is d**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is d**

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**Answer for Question No 9. is a**

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**Answer for Question No 10. is c**

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**Answer for Question No 11. is b**

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**Answer for Question No 12. is c**

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**Answer for Question No 13. is a**

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**Answer for Question No 14. is a**

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**Answer for Question No 15. is a**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is a**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is b**

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**Answer for Question No 23. is a**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is b**

**Answer for Question No 26. is d**

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**Answer for Question No 27. is c**

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**Answer for Question No 28. is c**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is c**

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**Answer for Question No 33. is d**

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**Answer for Question No 34. is b**

**Answer for Question No 35. is a**

**Answer for Question No 36. is a**

**Answer for Question No 37. is a**

**Answer for Question No 38. is b**

**Answer for Question No 39. is a**

**Answer for Question No 40. is c**

**Answer for Question No 41. is d**

**Answer for Question No 42. is c**

**Answer for Question No 43. is a**

**Answer for Question No 44. is c**

**Answer for Question No 45. is a**

**Answer for Question No 46. is b**

**Answer for Question No 47. is a**

**Answer for Question No 48. is a**

**Answer for Question No 49. is a**

**Answer for Question No 50. is c**

**Answer for Question No 51. is a**

### **Answer for Question No 52. is a**

**Answer for Question No 53. is c**

**Answer for Question No 54. is b**

**Answer for Question No 55. is c**

**Answer for Question No 56. is a**

**Answer for Question No 57. is b**

**Answer for Question No 58. is c**

### **Answer for Question No 59, is c**

**Answer for Question No 60. is a**

g

**Q.no 1. LR stands for**

- A : Left to right
- B : Left to right reduction
- C : Right to left
- D : Left to right and right most derivation in reverse

**Q.no 2. The pager concerns with the**

- A : entire thread
- B : first page of a process
- C : individual page of a process
- D : entire process

**Q.no 3. Nested Macro calls are expanded using the**

- A : FIFO rule (First in first out)
- B : LIFO (Last in First out)
- C : FILO rule (First in last out)
- D : None of the above

**Q.no 4. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

- A : wait queue
- B : ready queue
- C : cpu
- D : secondary storage

**Q.no 5. In memory-mapped I/O**

- A : The I/O devices and the memory share the same address space
- B : The I/O devices have a separate address space
- C : The memory and I/O devices have an associated address space
- D : A part of the memory is specifically set aside for the I/O operation

**Q.no 6. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

- A : Exceptions
- B : Signal handling
- C : Interrupts**
- D : DMA

**Q.no 7. Which of the following type of software should be used if you need to create, edit and print document ?**

- A : word processor**
- B : spreadsheet
- C : desktop publishing
- D : Unix

**Q.no 8. The data-in register of I/O port is**

- A : Read by host to get input**
- B : Read by controller to get input
- C : Written by host to send output
- D : Written by host to start a command

**Q.no 9. The advantage of I/O mapped devices to memory mapped is**

- A : The former offers faster transfer of data
- B : The devices connected using I/O mapping have a bigger buffer space
- C : The devices have to deal with fewer address lines**
- D : No advantage as such

**Q.no 10. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

- A : first-come, first-served scheduling**
- B : shortest job scheduling
- C : priority scheduling

D : Round Robin

**Q.no 11. which of the following is not a type of translator?**

A : assembler

B : compiler

**C : loader**

D : interpreter

**Q.no 12. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

**C : syntax analysis**

D : code optimization

**Q.no 13. Expansion time variables are used**

A : Before expansion of macro calls

**B : only during expansion of macro calls**

C : After expansion of macro calls

D : Any one of the above

**Q.no 14. which algo. Is nonpreemptive**

A : SJF-P

**B : FCFS**

C : RR

D : Priority

**Q.no 15. In priority scheduling algorithm**

**A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 16. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

- A : all process
- B : currently running process**

- C : parent process
- D : init process

**Q.no 17. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

- A : Myfile.e
- B : Myfile.yy.c**
- C : Myfile.lex
- D : Myfile.obj

**Q.no 18. The output of a lexical analyzer is**

- A : Machine code
- B : Intermediate code
- C : A stream of tokens**
- D : A parse tree

**Q.no 19. Page fault frequency in an operating system is reduced when the**

- A : processes tend to be I/O-bound
- B : size of pages is reduced
- C : processes tend to be CPU-bound
- D : locality of reference is applicable to the process**

**Q.no 20. Which amongst the following is not a valid page replacement policy?**

- A : LRU policy (Least Recently Use)
- B : FIFO policy (First in first out)
- C : RU policy (Recurrently use)**
- D : Optimal page replacement policy

**Q.no 21. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 22. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

**B : SJF – Shortest Job First**

C : RR – Round Robin

D : priority

**Q.no 23. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

**D : rotational latency**

**Q.no 24. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

**C : Scanner**

D : Loader

**Q.no 25. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

**B : it helps to reduce the size of page table needed to implement the virtual address space of a process**

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 26. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

**C : extension & name**

D : type & extension

**Q.no 27. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 28. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

**B : user level thread**

C : process

D : priority Process

**Q.no 29. Assembler processes**

A : any language

**B : assembly language**

C : c language

D : high level language

**Q.no 30. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 31. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 32. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

**B : Shortest Job First**

C : Earliest Deadline First

D : Longest Job First

**Q.no 33. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

**D : user programs can implement dynamic loading without any special support from hardware or operating system**

**Q.no 34. Operating system is**

**A : system software**

B : application software

C : both 1 & 2

D : not a software

**Q.no 35. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

**D : defining a macro**

**Q.no 36. which of these is not a pseudocode/assembler directive**

A : USING

**B : BALR**

C : DROP

D : ORG

**Q.no 37. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

**C : first come, first served**

D : critical ratio

**Q.no 38. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 39. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

**A : Simultaneous access**

B : Compaction

C : External Fragmentation

D : Division

**Q.no 40. A process is thrashing if**

**A : it is spending more time paging than executing**

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 41. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 42. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 43. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 44. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 45. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

**A : Identifier**

B : Number

C : Keyword

D : operator

**Q.no 46. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 47. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 & 3

**Q.no 48. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 49. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

**D : yet another compiler compiler**

**Q.no 50. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

**Q.no 51. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

- A : Counters
- B : RAM & Registers
- C : Stack & Counters**
- D : Registers

**Q.no 52. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

- A : write ahead
- B : read ahead
- C : free-behind**
- D : add-front

**Q.no 53. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

- A : page fault occurs**
- B : fatal error occurs
- C : segmentation fault occurs
- D : no error occurs

**Q.no 54. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

- A : Optimal replacement
- B : LRU
- C : FIFO**
- D : Both optimal replacement and FIFO

**Q.no 55. which directive sets the LC with address specified with address specification.**

- A : START
- B : END
- C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 56. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 57. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

**A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 58. Static memory allocation is typically performed during**

**A : compilation**

B : execution

C : loading

D : linking

**Q.no 59. If the wait for graph contains a cycle**

A : then a deadlock does not exist

**B : then a deadlock exists**

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 60. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

**A : Semantic analysis**

B : Syntax analysis

C : Regular analysis

D : General analysis

ON PHAT SWH

9

**Answer for Question No 1. is d**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is b**

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**Answer for Question No 5. is a**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is a**

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**Answer for Question No 8. is a**

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**Answer for Question No 9. is c**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is c**

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**Answer for Question No 12. is c**

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**Answer for Question No 13. is b**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is a**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is b**

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**Answer for Question No 18. is c**

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**Answer for Question No 19. is d**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is b**

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**Answer for Question No 23. is d**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is c**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is c**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is d**

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**Answer for Question No 34. is a**

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**Answer for Question No 35. is d**

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**Answer for Question No 36. is b**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is c**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is b**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is b**

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**Answer for Question No 45. is a**

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**Answer for Question No 46. is b**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is d**

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**Answer for Question No 50. is b**

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**Answer for Question No 51. is c**

**Answer for Question No 52. is c**

**Answer for Question No 53. is a**

**Answer for Question No 54. is c**

**Answer for Question No 55. is d**

**Answer for Question No 56. is c**

**Answer for Question No 57. is a**

**Answer for Question No 58. is a**

**Answer for Question No 59. is b**

**Answer for Question No 60. is a**

**Q.no 1. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 2. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 3. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

D : Both 1 & 3

**Q.no 4. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 5. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

10

**Q.no 6. When expression sum=3+2 is tokenized then what is the token category of 3**

- A : Identifier
- B : Assignment operator
- C : Integer Literal
- D : Addition Operator

**Q.no 7. In which of the following page replacement policies Balady's anomaly occurs?**

- A : FIFO
- B : LRU
- C : LFU
- D : NRU

**Q.no 8. Output of pass 1 assembler is**

- A : object code
- B : intermediate code
- C : assembly language code
- D : machine code

**Q.no 9. The end of a macro can be represented by the directive**

- A : END
- B : ENDS
- C : MEND
- D : ENDD

**Q.no 10. The function of OS**

- A : Resource allocator
- B : control program
- C : create user friendly env.
- D : All

**Q.no 11. A process is moved to wait queue when I/O request is made with**

- A : non-blocking I/O

**B : blocking I/O**

C : asynchronous I/O

D : synchronous I/O

**Q.no 12. syntax analyzer or parser takes the input from a \_\_\_\_\_****A : Lexical analyser**

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 13. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 14. To access services from OS, an interface is provided Called as****A : System call**

B : API

C : library

D : shell

**Q.no 15. Which command gives dynamic view of process states**

A : PS

**B : TOP**

C : fork

D : kill

**Q.no 16. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

D : Least Recently used

**Q.no 17. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 18. Which technique is used for temporarily removing inactive programs from the memory of computer system**

A : Swapping

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 19. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 20. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 21. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 22. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 23. Absolute loader loads object code in memory from**

A : Fixed location given by proframmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 24. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 25. Input of Lex is ?**

A : set to regular expression

B : statement

C : Numeric data

D : ASCII data

**Q.no 26. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 27. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 28. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 29. The offset 'd' of the logical address must be**

A : greater than segment limit

B : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 30. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 31. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 32. The concept in which a process is copied into the main memory from the secondary**

**memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 33. Shell is the exclusive feature of**

A : Dos

**B : Unix**

C : System software

D : Application software

**Q.no 34. In multilevel feedback scheduling algorithm**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 35. Each entry in a translation lookaside buffer (TL) consists of**

**A : key**

B : value

C : bit value

D : constant

**Q.no 36. START pseudo code is used for**

**A : setting initial value of LC and specifies start of program**

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 37. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 38. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 39. Which of the following derivation a top-down parser use while parsing an input string?  
The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 40. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

C : MACRO

D : none of the mentioned

**Q.no 41. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 42. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 43. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 44. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 45. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 46. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 47. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

**A : Identifier**

B : Number

C : Keyword

D : operator

**Q.no 48. The translator which translates high level language to machine code is****A : compiler**

B : assembler

C : loader

D : interpreter

**Q.no 49. An edge from process Pi to Pj in a wait for graph indicates that****A : Pi is waiting for Pj to release a resource that Pi needs**

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 50. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 51. In a two pass assembler the object code generation is done during the ?****A : Second pass**

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 52. How Sequential access method works on random access devices.****A : works well**

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 53. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 54. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 55. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

**D : Free Block List**

**Q.no 56. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

**A : the instruction set architecture**

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 57. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 58. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B : A program that appears to execute a source program as if it were machine language**

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 59. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

**C : PL domain and execution domain**

D : PL domain only

**Q.no 60. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

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**Answer for Question No 1. is a**

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**Answer for Question No 2. is b**

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**Answer for Question No 3. is d**

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**Answer for Question No 4. is b**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is a**

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**Answer for Question No 8. is b**

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**Answer for Question No 9. is c**

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**Answer for Question No 10. is d**

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**Answer for Question No 11. is b**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is b**

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**Answer for Question No 14. is a**

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**Answer for Question No 15. is b**

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**Answer for Question No 16. is d**

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**Answer for Question No 17. is c**

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**Answer for Question No 18. is a**

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**Answer for Question No 19. is b**

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**Answer for Question No 20. is d**

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**Answer for Question No 21. is c**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is a**

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**Answer for Question No 24. is a**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is c**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is a**

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**Answer for Question No 35. is a**

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**Answer for Question No 36. is a**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is a**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is b**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is c**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is b**

**Answer for Question No 51. is a**

**Answer for Question No 52. is a**

**Answer for Question No 53. is c**

**Answer for Question No 54. is b**

**Answer for Question No 55. is d**

**Answer for Question No 56. is a**

### **Answer for Question No 57. is b**

**Answer for Question No 58. is b**

**Answer for Question No 59. is c**

### **Answer for Question No 60. is b**

**Q.no 1. The system is notified of a read or write operation by**

- A : Appending an extra bit of the address
- B : Enabling the read or write bits of the devices
- C : Raising an appropriate interrupt signal
- D : Sending a special signal along the BUS**

**Q.no 2. which algo. Is nonpreemptive**

- A : SJF-P
- B : FCFS**
- C : RR
- D : Priority

**Q.no 3. Which of the following is used for grouping of characters into tokens?**

- A : Parser
- B : Code optimization
- C : Code generator
- D : Lexical analyser**

**Q.no 4. The interval from the time of submission of a process to the time of completion is termed as**

- A : waiting time
- B : turnaround time**
- C : response time
- D : throughput

**Q.no 5. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

- A : Directory Management
- B : Logical I/O**
- C : Device I/O
- D : Scheduling and control

**Q.no 6. Virtual memory is**

- A : An extremely large main memory
- B : An extremely large secondary memory
- C : An illusion of extremely large main memory**
- D : A type of memory used in super computers

**Q.no 7. SJF can be**

- A : preemptive only
- B : nonpreemptive only
- C : either preemptive or nonpreemptive**
- D : sequential

**Q.no 8. process is trash**

- A : it spends more time paging than executing**
- B : it spends less time paging than executing
- C : page fault occurs
- D : swapping can not take place

**Q.no 9. The output of a lexical analyzer is**

- A : Machine code
- B : Intermediate code
- C : A stream of tokens**
- D : A parse tree

**Q.no 10. Which of the following type of software should be used if you need to create, edit and print document ?**

- A : word processor**
- B : spreadsheet
- C : desktop publishing
- D : Unix

**Q.no 11. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

**B : currently running process**

C : parent process

D : init process

**Q.no 12. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

**C : syntax analysis**

D : code optimization

**Q.no 13. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

**D : Operating System**

**Q.no 14. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

**C : The devices have to deal with fewer address lines**

D : No advantage as such

**Q.no 15. The pager concerns with the**

**A : entire thread**

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 16. On a movable head system, the time it takes to position the head at the track is known as**

**A : seek time**

B : rotational delay

C : access time

D : Transfer time

**Q.no 17. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 18. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 19. In priority scheduling algorithm**

**A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 20. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use**

D : Optimal page replacement policy

**Q.no 21. Loader is a program that**

**A : places programs into memory and prepares them for execution**

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appears to execute a source program as if it were machine language

**Q.no 22. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 23. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 24. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 25. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

D : defining a macro

**Q.no 26. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 27. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

**D : Circular SCAN**

**Q.no 28. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

**C : knowledge of both system and application programming**

D : knowledge of hardware

**Q.no 29. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

**B : Syntax analysis**

C : . Semantic analysis

D : Structure analysis

**Q.no 30. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 31. Operating system is**

**A : system software**

B : application software

C : both 1 & 2

D : not a software

**Q.no 32. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 33. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 34. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

**D : rotational latency**

**Q.no 35. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

**B : it helps to reduce the size of page table needed to implement the virtual address space of a process**

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 36. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

**D : Demand paging**

**Q.no 37. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 38. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 39. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 40. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 41. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 42. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

**C : FIFO**

D : Both optimal replacement and FIFO

**Q.no 43. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.****A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 44. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 45. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

**D : yet another compiler compiler****Q.no 46. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 47. If the wait for graph contains a cycle**

A : then a deadlock does not exist

**B : then a deadlock exists**

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 48. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 49. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 50. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 51. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 52. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

**C : Stack & Counters**

D : Registers

**Q.no 53. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 54. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 55. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

**C : the page is in memory**

D : the page is not in memory

**Q.no 56. Static memory allocation is typically performed during**

**A : compilation**

B : execution

C : loading

D : linking

**Q.no 57. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

**C : PL domain and execution domain**

D : PL domain only

**Q.no 58.** s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 59.** The translator which translates high level language to machine code is

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 60.** An assembler is

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant



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**Answer for Question No 1. is d**

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**Answer for Question No 2. is b**

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**Answer for Question No 3. is d**

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**Answer for Question No 4. is b**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is a**

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**Answer for Question No 9. is c**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is b**

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**Answer for Question No 12. is c**

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**Answer for Question No 13. is d**

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**Answer for Question No 14. is c**

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**Answer for Question No 15. is a**

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**Answer for Question No 16. is a**

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**Answer for Question No 17. is b**

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**Answer for Question No 18. is d**

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**Answer for Question No 19. is a**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is c**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is d**

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**Answer for Question No 26. is d**

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**Answer for Question No 27. is d**

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**Answer for Question No 28. is c**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is d**

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**Answer for Question No 35. is b**

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**Answer for Question No 36. is d**

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**Answer for Question No 37. is a**

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**Answer for Question No 38. is a**

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**Answer for Question No 39. is b**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is d**

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**Answer for Question No 46. is c**

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**Answer for Question No 47. is b**

---

**Answer for Question No 48. is a**

---

**Answer for Question No 49. is b**

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**Answer for Question No 50. is b**

**Answer for Question No 51. is c**

**Answer for Question No 52. is c**

**Answer for Question No 53. is a**

**Answer for Question No 54. is b**

**Answer for Question No 55. is c**

**Answer for Question No 56. is a**

**Answer for Question No 57. is c**

**Answer for Question No 58. is a**

**Answer for Question No 59. is a**

**Answer for Question No 60. is c**

12

**Q.no 1. The data-in register of I/O port is**

- A : Read by host to get input
- B : Read by controller to get input
- C : Written by host to send output
- D : Written by host to start a command

**Q.no 2. Which of the following is not an intermediate code form?**

- A : Postfix notation
- B : Syntax trees
- C : Three address codes
- D : Prefix notation

**Q.no 3. Which command gives dynamic view of process states**

- A : PS
- B : TOP
- C : fork
- D : kill

**Q.no 4. The process wherein the processor constantly checks the status flags is called as**

- A : Polling
- B : Inspection
- C : Reviewing
- D : Echoing

**Q.no 5. Expansion time variables are used**

- A : Before expansion of macro calls
- B : only during expansion of macro calls
- C : After expansion of macro calls
- D : Any one of the above

**Q.no 6. In which of the following page replacement policies Balady's anomaly occurs?**

**A : FIFO**

B : LRU

C : LFU

D : NRU

**Q.no 7. Which module gives control of the CPU to the process selected by the short-term scheduler?****A : Dispatcher**

B : interrupt

C : scheduler

D : interpreter

**Q.no 8. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

A : Myfile.e

**B : Myfile.yy.c**

C : Myfile.lex

D : Myfile.obj

**Q.no 9. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

**B : virtual memory**

C : auxiliary memory

D : secondary memory

**Q.no 10. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

**B : Single buffer**

C : Linear buffer

D : Circular buffer

**Q.no 11. Assembly language programs are written using**

A : Hex code

**B : Mnemonics**

C : ASCII code

D : C Language

**Q.no 12. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

**D : Left to right and right most derivation in reverse**

**Q.no 13. The memory allocation scheme subject to “external” fragmentation is**

**A : segmentation**

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 14. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

**D : Both 1 & 3**

**Q.no 15. Which technique is used for temporarily removing inactive programs from the memory of computer system**

**A : Swapping**

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 16. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 17. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

B : blocking I/O

C : asynchronous I/O

D : synchronous I/O

**Q.no 18. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

D : Least Recently used

**Q.no 19. Page fault frequency in an operating system is reduced when the**

A : processes tend to be I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

D : locality of reference is applicable to the process

**Q.no 20. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 21. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 22. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 23. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 24. A self relocating program in one which**

A : can not be made to execute in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself performs the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 25. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the space occupied by the assembler is unavailable to the object program

B : it is necessary to retranslate the user's program each time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 26. Which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 27. Memory protection in a paged environment is accomplished by**

- A : protection algorithm with each page
- B : restricted access rights to users
- C : restriction on page visibility
- D : protection bit with each page**

**Q.no 28. in which Swap space exists**

- A : cpu
- B : primary memory
- C : secondary memory**
- D : none of the mentioned

**Q.no 29. File type can be represented by**

- A : file extension**
- B : file identifier
- C : file name
- D : none of the mentioned

**Q.no 30. Absolute loader loads object code in memory from**

- A : Fixed location given by programmer**
- B : Any location which is free
- C : Fixed location given by assembler
- D : Any location and overwrites existing contents

**Q.no 31. What is Scheduling?**

- A : allowing a job to use the processor**
- B : making proper use of processor
- C : all of the mentioned
- D : none of the mentioned

**Q.no 32. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 33. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 34. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 35. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 36. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 37. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

### **Q.no 38. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

### **Q.no 39. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

### **Q.no 40. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

### **Q.no 41. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

### **Q.no 42. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 43. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B : A program that appears to execute a source program as if it were machine language**

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 44. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 45. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 46. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 47. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 48. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 49. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 50. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 51. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 52. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

**D : Free Block List**

**Q.no 53. A grammar that produces more than one parse tree for some sentence is called**

**A : Ambiguous**

B : Unambiguous

C : Regular

D : None of these

**Q.no 54. How Sequential access method works on random access devices.**

**A : works well**

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 55. Using a pager**

A : increases the swap time

B : decreases the swap time

**C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 56. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 57. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 58. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 59. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 60. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Answer for Question No 1. is a**

12

**Answer for Question No 2. is d**

**Answer for Question No 3. is b**

**Answer for Question No 4. is a**

**Answer for Question No 5. is b**

**Answer for Question No 6. is a**

**Answer for Question No 7. is a**

**Answer for Question No 8. is b**

**Answer for Question No 9. is b**

**Answer for Question No 10. is b**

**Answer for Question No 11. is b**

**Answer for Question No 12. is d**

**Answer for Question No 13. is a**

**Answer for Question No 14. is d**

**Answer for Question No 15. is a**

**Answer for Question No 16. is c**

**Answer for Question No 17. is b**

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**Answer for Question No 18. is d**

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**Answer for Question No 19. is d**

---

**Answer for Question No 20. is b**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is c**

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**Answer for Question No 23. is a**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is d**

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**Answer for Question No 26. is b**

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**Answer for Question No 27. is d**

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**Answer for Question No 28. is c**

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**Answer for Question No 29. is a**

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**Answer for Question No 30. is a**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is c**

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**Answer for Question No 35. is b**

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**Answer for Question No 36. is b**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is d**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is b**

---

**Answer for Question No 46. is b**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is b**

---

**Answer for Question No 49. is c**

---

**Answer for Question No 50. is a**

**Answer for Question No 51. is b**

**Answer for Question No 52. is d**

**Answer for Question No 53. is a**

**Answer for Question No 54. is a**

### **Answer for Question No 55. is c**

### **Answer for Question No 56. is d**

**Answer for Question No 57. is a**

**Answer for Question No 58. is a**

## **Answer for Question No 59. is b**

**Answer for Question No 60. is b**

**Q.no 1. Examples of system program includes**

- A : Ticket booking system
- B : Banking software
- C : Online shopping program
- D : Operating System**

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**Q.no 2. Which algorithm is defined in Time quantum?**

- A : shortest job scheduling algorithm
- B : round robin scheduling algorithm**
- C : priority scheduling algorithm
- D : multilevel queue scheduling algorithm

**Q.no 3. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

- A : Assembler
- B : Linking loader**
- C : Cross compiler
- D : Load and Go

**Q.no 4. In memory-mapped I/O**

- A : The I/O devices and the memory share the same address space**
- B : The I/O devices have a separate address space
- C : The memory and I/O devices have an associated address space
- D : A part of the memory is specifically set aside for the I/O operation

**Q.no 5. The pager concerns with the**

- A : entire thread**
- B : first page of a process
- C : individual page of a process
- D : entire process

**Q.no 6. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

D : Loader

**Q.no 7. which of the following is not a type of translator?**

A : assembler

B : compiler

C : loader

D : interpreter

**Q.no 8. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 9. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 10. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 11. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 12. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 13. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 14. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 15. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

C : Single BUS structure

D : Node to Node BUS structure

**Q.no 16. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

B : File system

C : Directory management

D : Scheduling and control

**Q.no 17. SJF can be**

A : preemptive only

B : nonpreemptive only

**C : either preemptive or nonpreemptive**

D : sequential

**Q.no 18. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

**B : ready queue**

C : execution queue

D : process queue

**Q.no 19. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

**C : To indicate the starting position in memory, where the program block is to be stored**

D : To list the locations of all the registers used

**Q.no 20. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 21. In which disk information is recorded magnetically on platters.**

**A : magnetic disks**

B : electrical disks

C : assemblies

D : cylinders

**Q.no 22. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 23. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 24. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

**D : rotational latency**

**Q.no 25. Machine independent phase of the compiler is**

**A : syntax analysis and Lexical analysis**

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 26. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

**C : knowledge of both system and application programming**

D : knowledge of hardware

**Q.no 27. The offset ‘d’ of the logical address must be**

- A : greater than segment limit
- B : between 0 and segment limit**
- C : between 0 and the segment number
- D : greater than the segment number

**Q.no 28. START pseudo code is used for**

- A : setting initial value of LC and specifies start of program**
- B : Specifying start of a Register Table
- C : specifies start of literal table
- D : specifies start of symbol table

**Q.no 29. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

- A : Chained allocation
- B : Indexed allocation**
- C : Contiguous allocation
- D : Variable allocation

**Q.no 30. Which of the following isn't a part of the file directory?**

- A : Attributes
- B : Protocol**
- C : Location
- D : Ownership

**Q.no 31. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

- A : earliest due date
- B : slack time remaining
- C : first come, first served**
- D : critical ratio

**Q.no 32. If a number of instructions are repeating through the main program, then what is to be**

**used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 33. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 34. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

C : valid – invalid

D : access

**Q.no 35. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

B : SJF – Shortest Job First

C : RR – Round Robin

D : priority

**Q.no 36. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

D : defining a macro

**Q.no 37. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

C : MACRO

D : none of the mentioned

**Q.no 38. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 39. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 40. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 41. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 42. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 43. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 44. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 45. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 46. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 47. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 48. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 49. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 50. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 51. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 52. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 53. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 54. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 55. Static memory allocation is typically performed during**

**A : compilation**

B : execution

C : loading

D : linking

**Q.no 56. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

**C : the page is in memory**

D : the page is not in memory

**Q.no 57. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 58. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 59. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 60. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

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**Answer for Question No 1. is d**

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**Answer for Question No 2. is b**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is a**

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**Answer for Question No 5. is a**

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**Answer for Question No 6. is d**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is b**

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**Answer for Question No 9. is a**

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**Answer for Question No 10. is b**

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**Answer for Question No 11. is d**

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**Answer for Question No 12. is b**

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**Answer for Question No 13. is d**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is c**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is c**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is c**

**Answer for Question No 23. is b**

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**Answer for Question No 24. is d**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is c**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is c**

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**Answer for Question No 32. is c**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is c**

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**Answer for Question No 35. is b**

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**Answer for Question No 36. is d**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is b**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is c**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is a**

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**Answer for Question No 46. is c**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is c**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is c**

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**Answer for Question No 52. is b**

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**Answer for Question No 53. is c**

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**Answer for Question No 54. is b**

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**Answer for Question No 55. is a**

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**Answer for Question No 56. is c**

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**Answer for Question No 57. is a**

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**Answer for Question No 58. is c**

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**Answer for Question No 59. is c**

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**Answer for Question No 60. is d**

**Q.no 1. The memory allocation scheme subject to “external” fragmentation is**

14

**A : segmentation**

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 2. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use**

D : Optimal page replacement policy

**Q.no 3. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

**B : LIFO (Last in First out)**

C : FILO rule (First in last out)

D : None of the above

**Q.no 4. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

**B : blocking I/O**

C : asynchronous I/O

D : synchronous I/O

**Q.no 5. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

**B : Logical I/O**

C : Device I/O

D : Scheduling and control

**Q.no 6. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

**B : Single buffer**

C : Linear buffer

D : Circular buffer

**Q.no 7. Time sharing system is implemented using**

A : FCFS

B : SJF

**C : RR**

D : priority

**Q.no 8. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

**D : anywhere in a program**

**Q.no 9. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

**D : DMA**

**Q.no 10. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

**C : Interrupts**

D : DMA

**Q.no 11. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 12. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 13. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 14. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 15. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 16. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

C : syntax analysis

D : code optimization

**Q.no 17. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 18. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 19. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 20. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 21. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 22. A self relocating program in one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself perform the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 23. Pass-1 of two pass assembler is used for**

A : synthesizing code

B : gathering information

C : processing macro

D : expanding macro

**Q.no 24. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 25. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 26. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 27. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

- A : overwrites the word
- B : overwrites the functionality
- C : generates an error
- D : something else

**Q.no 28. With round robin scheduling algorithm in a time shared system**

- A : using very large time slices converts it into First come First served scheduling algorithm
- B : using very small time slices converts it into First come First served scheduling algorithm
- C : using extremely small time slices increases performance
- D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 29. The strategy of making processes that are logically runnable to be temporarily suspended is called**

- A : Non preemptive scheduling
- B : Preemptive scheduling
- C : Shortest job first
- D : First come First served

**Q.no 30. Linking is process of binding**

- A : Internal part of a program
- B : external functional call
- C : External reference to the correct link time address
- D : None of the above

**Q.no 31. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

- A : Paging
- B : Demand paging
- C : Segmentation
- D : Swapping

**Q.no 32. Which of the following derivation a top-down parser use while parsing an input string?  
The input is assumed to be scanned in left to right order ?**

- A : Leftmost derivation
- B : Leftmost derivation traced out in reverse
- C : Rightmost derivation
- D : ightmost derivation traced out in reverse

**Q.no 33. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

- A : Bit table
- B : Chained Free Portion
- C : Indexing
- D : Free Block List

**Q.no 34. Assembler processes**

- A : any language
- B : assembly language
- C : c language
- D : high level language

**Q.no 35. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

- A : Last in first out
- B : Shortest service time first
- C : SCAN
- D : Circular SCAN

**Q.no 36. a process is copied into the main memory from the secondary memory**

- A : Swapping
- B : Paging
- C : Segmentation
- D : Demand paging

**Q.no 37. Yacc resolves conflicts by of type ?**

- A : Reduce - Reduce
- B : Shift - Reduce
- C : Shift - Shift
- D : Both A and B**

**Q.no 38. What is Scheduling?**

- A : allowing a job to use the processor**
- B : making proper use of processor
- C : all of the mentioned
- D : none of the mentioned

**Q.no 39. Which of the following table is used to identify macro calls?**

- A : Macro Name table**
- B : Actual Parameter Table
- C : Parameter Default table
- D : Expansion time variable Table

**Q.no 40. The file name is generally split into two parts :**

- A : name & identifier
- B : identifier & type
- C : extension & name**
- D : type & extension

**Q.no 41. Using a pager**

- A : increases the swap time
- B : decreases the swap time
- C : decreases the swap time & amount of physical memory needed**
- D : increases the amount of physical memory needed

**Q.no 42. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 43. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 44. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 45. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 46. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 47. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 48. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 49. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 50. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 51. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 52. When a program tries to access a page that is mapped in address space but not loaded in**

**physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 53. How Sequential access method works on random access devices.**

A : works well

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 54. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 55. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 56. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 57. In free space management, which method has negligible space overhead because there is**

**no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 58. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 59. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Iburg

D : both 1 & 3

**Q.no 60. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

**C : free-behind**

D : add-front

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**Answer for Question No 1. is a**

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**Answer for Question No 2. is c**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is b**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is d**

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**Answer for Question No 9. is d**

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**Answer for Question No 10. is c**

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**Answer for Question No 11. is d**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is a**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is c**

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**Answer for Question No 16. is c**

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**Answer for Question No 17. is b**

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**Answer for Question No 18. is a**

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**Answer for Question No 19. is a**

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**Answer for Question No 20. is d**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is c**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is b**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is c**

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**Answer for Question No 27. is c**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is c**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is b**

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**Answer for Question No 35. is d**

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**Answer for Question No 36. is d**

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**Answer for Question No 37. is d**

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**Answer for Question No 38. is a**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is c**

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**Answer for Question No 42. is d**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is b**

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**Answer for Question No 45. is d**

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**Answer for Question No 46. is c**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is b**

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**Answer for Question No 50. is b**

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**Answer for Question No 51.** is a

**Answer for Question No 52.** is a

**Answer for Question No 53.** is a

**Answer for Question No 54.** is b

**Answer for Question No 55.** is a

**Answer for Question No 56.** is b

**Answer for Question No 57.** is b

**Answer for Question No 58.** is c

**Answer for Question No 59.** is b

**Answer for Question No 60.** is c

**Q.no 1. A model statement contains call for another macro is called as**

15

A : referential macro call

**B : nested macro call**

C : inbuilt macro call

D : inherited macro call

**Q.no 2. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

**D : Sending a special signal along the BUS****Q.no 3. Output of pass 1 assembler is**

A : object code

**B : intermediate code**

C : assembly language code

D : machine code

**Q.no 4. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

A : Myfile.e

**B : Myfile.yy.c**

C : Myfile.lex

D : Myfile.obj

**Q.no 5. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

**C : An illusion of extremely large main memory**

D : A type of memory used in super computers

**Q.no 6. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 7. The pager concerns with the**

A : entire thread

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 8. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 9. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

C : A stream of tokens

D : A parse tree

**Q.no 10. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

D : Both 1 & 3

**Q.no 11. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 12. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

**C : The devices have to deal with fewer address lines**

D : No advantage as such

**Q.no 13. To access services from OS, an interface is provided Called as**

**A : System call**

B : API

C : library

D : shell

**Q.no 14. In priority scheduling algorithm**

**A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 15. Assembly language programs are written using**

A : Hex code

**B : Mnemonics**

C : ASCII code

D : C Language

**Q.no 16. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

**D : Operating System**

**Q.no 17. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 18. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 19. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 20. The end of a macro can be represented by the directive**

A : END

B : ENDS

C : MEND

D : ENDD

**Q.no 21. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

**D : defining a macro****Q.no 22. The real difficulty with SJF in short term scheduling is**

- A : it is too good an algorithm
- B : knowing the length of the next CPU request**
- C : it is too complex to understand
- D : it is too complex to implement

**Q.no 23. When the valid – invalid bit is set to valid, it means that the associated page**

- A : is in the TLB
- B : has data in it
- C : is in the process's logical address space**
- D : is the system's physical address space

**Q.no 24. Memory protection in a paged environment is accomplished by**

- A : protection algorithm with each page
- B : restricted access rights to users
- C : restriction on page visibility
- D : protection bit with each page**

**Q.no 25. To obtain better memory utilization, dynamic loading is used. With dynamic loading, a routine is not loaded until it is called. For implementing dynamic loading**

- A : special support from hardware is required
- B : special support from operating system is essential
- C : special support from both hardware and operating system is essential
- D : user programs can implement dynamic loading without any special support from hardware or operating system**

**Q.no 26. In segmentation, each address is specified by**

- A : a segment number & offset**
- B : an offset & value
- C : a value & segment number
- D : a key & value

**Q.no 27. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

**B : Shortest Job First**

C : Earliest Deadline First

D : Longest Job First

**Q.no 28. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 29. Way of specifying arguments in instruction is**

A : instruction format

**B : addressing modes**

C : both 1 & 2

D : function

**Q.no 30. Which one is a lexer Generator**

A : YACC

B : BISON

**C : FLEX**

D : Ibburg

**Q.no 31. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

**B : user level thread**

C : process

D : priority Process

**Q.no 32. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 33. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 34. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 35. Which of the following isn't a part of the file directory?**

A : Attributes

B : Protocol

C : Location

D : Ownership

**Q.no 36. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 37. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

**B : Indexed allocation**

C : Contiguous allocation

D : Variable allocation

**Q.no 38. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 39. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 40. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 41. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 42. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 43. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 44. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 45. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 46. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 47. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 48. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 49. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 50. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 51. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 52. An assembler is**

A : programming language dependent

B : syntax dependant

**C : machine dependant**

D : data dependant

**Q.no 53. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

**Q.no 54. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

**C : PL domain and execution domain**

D : PL domain only

**Q.no 55. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

**C : Stack & Counters**

D : Registers

**Q.no 56. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 57. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 58. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 59. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 60. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Answer for Question No 1. is b**

**Answer for Question No 2. is d**

**Answer for Question No 3. is b**

**Answer for Question No 4. is b**

**Answer for Question No 5. is c**

**Answer for Question No 6. is c**

**Answer for Question No 7. is a**

**Answer for Question No 8. is b**

**Answer for Question No 9. is c**

**Answer for Question No 10. is d**

**Answer for Question No 11. is b**

**Answer for Question No 12. is c**

**Answer for Question No 13. is a**

**Answer for Question No 14. is a**

**Answer for Question No 15. is b**

**Answer for Question No 16. is d**

**Answer for Question No 17. is a**

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**Answer for Question No 18. is c**

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**Answer for Question No 19. is b**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is d**

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**Answer for Question No 22. is b**

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**Answer for Question No 23. is c**

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**Answer for Question No 24. is d**

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**Answer for Question No 25. is d**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is c**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is c**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is c**

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**Answer for Question No 34. is b**

**Answer for Question No 35. is b**

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**Answer for Question No 36. is d**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is c**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is a**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is c**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is c**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is d**

**Answer for Question No 52. is c**

**Answer for Question No 53. is b**

**Answer for Question No 54. is c**

### **Answer for Question No 55. is c**

### **Answer for Question No 56. is a**

## **Answer for Question No 57. Is a**

## **Answer for Question No 60. is b**

**Q.no 1. Which command gives dynamic view of process states**

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A : PS

**B : TOP**

C : fork

D : kill

**Q.no 2. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

**D : Prefix notation****Q.no 3. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

**B : Logical I/O**

C : Device I/O

D : Scheduling and control

**Q.no 4. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

**C : Integer Literal**

D : Addition Operator

**Q.no 5. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 6. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 7. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 8. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 9. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 10. Which technique is used for temporarily removing inactive programs from the memory of computer system**

A : Swapping

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 11. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

D : locality of reference is applicable to the process

**Q.no 12. On a movable head system, the time it takes to position the head at the track is known as**

A : seek time

B : rotational delay

C : access time

D : Transfer time

**Q.no 13. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 14. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 15. Expansion time variables are used**

A : Before expansion of macro calls

B : only during expansion of macro calls

C : After expansion of macro calls

D : Any one of the above

**Q.no 16. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 17. Time sharing system is implemented using**

A : FCFS

B : SJF

**C : RR**

D : priority

**Q.no 18. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 19. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

**D : Left to right and right most derivation in reverse**

**Q.no 20. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 21. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

**B : Syntax analysis**

C : . Semantic analysis

D : Structure analysis

**Q.no 22. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

A : overwrites the word

B : overwrites the functionality

**C : generates an error**

D : something else

**Q.no 23. The offset ‘d’ of the logical address must be**

A : greater than segment limit

**B : between 0 and segment limit**

C : between 0 and the segment number

D : greater than the segment number

**Q.no 24. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 25. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 26. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

**B : first executes the job that came in first in the queue**

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 27. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 28. Format of macro call is**

A : <macro name> [<actual parameter spec>,...]

B : <macro name> [<formal parameter spec>,...]

C : <macro name>

D : <call macro>

**Q.no 29. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 30. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 31. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 32. a process is copied into the main memory from the secondary memory**

- A : Swapping
- B : Paging
- C : Segmentation
- D : Demand paging**

**Q.no 33. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

- A : Bit table**
- B : Chained Free Portion
- C : Indexing
- D : Free Block List

**Q.no 34. Pass-1 of two pass assmbler is used for**

- A : synthesizing code
- B : gathering information**
- C : processing macro
- D : expanding macro

**Q.no 35. The strategy of making processes that are logically runnable to be temporarily suspended is called**

- A : Non preemptive scheduling
- B : Preemptive scheduling**
- C : Shortest job first
- D : First come First served

**Q.no 36. System softwares are used to**

- A : bridge gap between different applications
- B : bridge gap between different users
- C : bridge gap between programmer and system**
- D : bridge gap between different systems

**Q.no 37. Lexemes can be referred to as**

A : elements of lexicography

**B : sequence of alphanumeric characters in a token**

C : lexical errors

D : none of the mentioned

**Q.no 38. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

**C : valid – invalid**

D : access

**Q.no 39. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

**A : Simultaneous access**

B : Compaction

C : External Fragmentation

D : Division

**Q.no 40. Machine independent phase of the compiler is**

**A : syntax analysis and Lexical analysis**

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 41. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

**C : free-behind**

D : add-front

**Q.no 42. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 43. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 44. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 45. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 46. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 47. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 48. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 49. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 50. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

**A : the instruction set architecture**

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 51. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 52. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 53. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 54. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 55. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 56. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 57. Using a pager**

- A : increases the swap time
- B : decreases the swap time
- C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 58. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

- A : Optimal replacement
- B : LRU
- C : FIFO**

D : Both optimal replacement and FIFO

**Q.no 59. In a two pass assembler the object code generation is done during the ?**

- A : Second pass**
- B : First pass
- C : Zeroth pass
- D : Not done by assembler

**Q.no 60. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

- A : resources currently available**
- B : processes that have previously been in the system
- C : resources currently allocated to each process
- D : future requests and releases of each process

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**Answer for Question No 1. is b**

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**Answer for Question No 2. is d**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is c**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is d**

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**Answer for Question No 9. is b**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is d**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is d**

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**Answer for Question No 14. is a**

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**Answer for Question No 15. is b**

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**Answer for Question No 16. is a**

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**Answer for Question No 17. is c**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is d**

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**Answer for Question No 20. is b**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is c**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is b**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is a**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is d**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is b**

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**Answer for Question No 35. is b**

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**Answer for Question No 36. is c**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is c**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is c**

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**Answer for Question No 42. is b**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is d**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is c**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is b**

### **Answer for Question No 52. is d**

**Answer for Question No 53. is b**

**Answer for Question No 54. is c**

**Answer for Question No 55. is a**

**Answer for Question No 56. is a**

**Answer for Question No 57. is c**

**Answer for Question No 58. is c**

### **Answer for Question No 59. is a**

**Answer for Question No 60. is a**

**Q.no 1. LRU stands for?**

- A : Less Recently used
- B : Least Recurrently used
- C : Least Randomly used
- D : Least Recently used

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**Q.no 2. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

- A : first-come, first-served scheduling
- B : shortest job scheduling
- C : priority scheduling
- D : Round Robin

**Q.no 3. In memory-mapped I/O**

- A : The I/O devices and the memory share the same address space
- B : The I/O devices have a separate address space
- C : The memory and I/O devices have an associated address space
- D : A part of the memory is specifically set aside for the I/O operation

**Q.no 4. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

- A : job queue
- B : ready queue
- C : execution queue
- D : process queue

**Q.no 5. SJF can be**

- A : preemptive only
- B : nonpreemptive only
- C : either preemptive or nonpreemptive
- D : sequential

**Q.no 6. The interval from the time of submission of a process to the time of completion is termed**

**as**

A : waiting time

**B : turnaround time**

C : response time

D : throughput

**Q.no 7. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

**C : The devices have to deal with fewer address lines**

D : No advantage as such

**Q.no 8. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

**C : An illusion of extremely large main memory**

D : A type of memory used in super computers

**Q.no 9. To access services from OS, an interface is provided Called as**

**A : System call**

B : API

C : library

D : shell

**Q.no 10. The pager concerns with the**

**A : entire thread**

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 11. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

**B : virtual memory**

C : auxiliary memory

D : secondary memory

**Q.no 12. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 13. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

**C : syntax analysis**

D : code optimization

**Q.no 14. A model statement contains call for another macro is called as**

A : referential macro call

**B : nested macro call**

C : inbuilt macro call

D : inherited macro call

**Q.no 15. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 16. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 17. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

B : LIFO (Last in First out)

C : FILO rule (First in last out)

D : None of the above

**Q.no 18. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 19. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 20. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 21. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 22. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 23. Shell is the exclusive feature of**

A : Dos

**B : Unix**

C : System software

D : Application software

**Q.no 24. Each entry in a translation lookaside buffer (TL) consists of**

**A : key**

B : value

C : bit value

D : constant

**Q.no 25. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

**C : extension & name**

D : type & extension

**Q.no 26. Operating system is**

**A : system software**

B : application software

C : both 1 & 2

D : not a software

**Q.no 27. in which Swap space exists**

- A : cpu
- B : primary memory
- C : secondary memory**
- D : none of the mentioned

**Q.no 28. The beginning of the macro definition can be represented as**

- A : START
- B : BEGIN
- C : MACRO**
- D : none of the mentioned

**Q.no 29. System programmer needs**

- A : knowledge of only system
- B : knowledge of only programming
- C : knowledge of both system and application programming**
- D : knowledge of hardware

**Q.no 30. Yacc resolves conflicts by of type ?**

- A : Reduce - Reduce
- B : Shift - Reduce
- C : Shift - Shift
- D : Both A and B**

**Q.no 31. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

- A : earliest due date
- B : slack time remaining
- C : first come, first served**
- D : critical ratio

**Q.no 32. With round robin scheduling algorithm in a time shared system**

- A : using very large time slices converts it into First come First served scheduling algorithm**

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 33. Assembler processes**

A : any language

**B : assembly language**

C : c language

D : high level language

**Q.no 34. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

**D : protection bit with each page**

**Q.no 35. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 36. Loader is a program that**

**A : places programs into memory and prepares them for execution**

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 37. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 38. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 39. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 40. Input of Lex is ?**

A : set to regular expression

B : statement

C : Numeric data

D : ASCII data

**Q.no 41. How Sequential access method works on random access devices.**

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 42. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 43. If the wait for graph contains a cycle**

A : then a deadlock does not exist

**B : then a deadlock exists**

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 44. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 45. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 46. Static memory allocation is typically performed during****A : compilation**

B : execution

C : loading

D : linking

**Q.no 47. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 &amp; 2

**Q.no 48. Given a priori information about the number of resources of each type that maybe**

**requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 49. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 50. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

**Q.no 51. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 52. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

**C : Stack & Counters**

D : Registers

**Q.no 53. Which method on free space management, each block is assigned in a reserved portion of the disk.**

- A : Bit tables
- B : Chained Free Portions
- C : Indexing
- D : Free Block List**

**Q.no 54. A grammar that produces more than one parse tree for some sentence is called**

- A : Ambiguous**
- B : Unambiguous
- C : Regular
- D : None of these

**Q.no 55. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

- A : page fault occurs**
- B : fatal error occurs
- C : segmentation fault occurs
- D : no error occurs

**Q.no 56. Which of the following software tool is parser generator ?**

- A : Lex
- B : Yacc**
- C : Ibburg
- D : both 1 & 3

**Q.no 57. RLD in Direct linking loader stands for**

- A : Redirection and Load Directory
- B : Relocation & Linkage Directory**
- C : Relocation and Load Directory
- D : Redirection and Linkage Directory

**Q.no 58. A compiler bridges the semantic gap between .....**

- A : PL domain and storage domain
- B : execution domain and syntax domain
- C : PL domain and execution domain**
- D : PL domain only

**Q.no 59. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

- A : resource allocation state**
- B : system storage state
- C : operating system
- D : resources

**Q.no 60. The translator which translates high level language to machine code is**

- A : compiler**
- B : assembler
- C : loader
- D : interpreter

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**Answer for Question No 1. is d**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is a**

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**Answer for Question No 4. is b**

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**Answer for Question No 5. is c**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is c**

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**Answer for Question No 9. is a**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is b**

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**Answer for Question No 12. is c**

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**Answer for Question No 13. is c**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is c**

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**Answer for Question No 16. is d**

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**Answer for Question No 17. is b**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is a**

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**Answer for Question No 20. is b**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is b**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is a**

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**Answer for Question No 25. is c**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is c**

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**Answer for Question No 28. is c**

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**Answer for Question No 29. is c**

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**Answer for Question No 30. is d**

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**Answer for Question No 31. is c**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is d**

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**Answer for Question No 35. is b**

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**Answer for Question No 36. is a**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is d**

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**Answer for Question No 39. is b**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is c**

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**Answer for Question No 49. is d**

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**Answer for Question No 50. is b**

**Answer for Question No 51. is c**

**Answer for Question No 52. is c**

**Answer for Question No 53. is d**

**Answer for Question No 54. is a**

**Answer for Question No 55. is a**

**Answer for Question No 56. is b**

**Answer for Question No 57. is b**

**Answer for Question No 58. is c**

**Answer for Question No 59. is a**

**Answer for Question No 60. is a**

**Q.no 1. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 2. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 3. In priority scheduling algorithm**

A : CPU is allocated to the process with highest priority

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 4. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 5. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 6. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is**

**compared with the priority of**

A : all process

**B : currently running process**

C : parent process

D : init process

**Q.no 7. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

A : Myfile.e

**B : Myfile.yy.c**

C : Myfile.lex

D : Myfile.obj

**Q.no 8. process is trash**

**A : it spends more time paging than executing**

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 9. Which of the following is used for grouping of characters into tokens?**

A : Parser

B : Code optimization

C : Code generator

**D : Lexical analyser**

**Q.no 10. Which of the following type of software should be used if you need to create, edit and print document ?**

**A : word processor**

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 11. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

**B : blocking I/O**

C : asynchronous I/O

D : synchronous I/O

**Q.no 12. Relocatable programs**

A : cannot be used with fixed partitions

**B : can be loaded almost anywhere in memory**

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 13. In which of the following page replacement policies Balady's anomaly occurs?**

**A : FIFO**

B : LRU

C : LFU

D : NRU

**Q.no 14. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

**B : Single buffer**

C : Linear buffer

D : Circular buffer

**Q.no 15. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

**D : Both 1 & 3**

**Q.no 16. which of the following is not a type of translator?**

A : assembler

B : compiler

C : loader

D : interpreter

**Q.no 17. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

D : Operating System

**Q.no 18. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 19. Expansion time variables are used**

A : Before expansion of macro calls

B : only during expansion of macro calls

C : After expansion of macro calls

D : Any one of the above

**Q.no 20. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 21. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 22. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

**D : Circular SCAN**

**Q.no 23. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

**A : assigning ready processes to CPU**

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 24. File type can be represented by**

**A : file extension**

B : file identifier

C : file name

D : none of the mentioned

**Q.no 25. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

**B : SJF – Shortest Job First**

C : RR – Round Robin

D : priority

**Q.no 26. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 27. A self relocating program in one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself performs the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 28. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 29. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

B : Indexed allocation

C : Contiguous allocation

D : Variable allocation

**Q.no 30. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 31. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 32. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 33. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 34. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 35. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 36. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 37. Which of the following derivation a top-down parser use while parsing an input string?  
The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 38. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 39. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 40. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 41. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source

**program as if it were machine language**

C : A program that automate the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 42. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 43. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 44. Using a pager**

A : increases the swap time

B : decreases the swap time

**C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 45. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 46. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 47. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 48. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 49. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 50. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 51. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 52. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 53. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 54. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 55. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 56. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 57. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 & 3

**Q.no 58. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

**Q.no 59. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 60. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

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**Answer for Question No 1. is a**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is a**

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**Answer for Question No 4. is a**

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**Answer for Question No 5. is c**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is b**

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**Answer for Question No 8. is a**

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**Answer for Question No 9. is d**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is b**

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**Answer for Question No 12. is b**

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**Answer for Question No 13. is a**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is d**

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**Answer for Question No 16. is c**

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**Answer for Question No 17. is d**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is b**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is d**

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**Answer for Question No 23. is a**

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**Answer for Question No 24. is a**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is d**

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**Answer for Question No 27. is c**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is d**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is c**

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**Answer for Question No 35. is d**

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**Answer for Question No 36. is a**

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**Answer for Question No 37. is a**

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**Answer for Question No 38. is a**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is b**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is b**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is c**

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**Answer for Question No 52. is a**

**Answer for Question No 53. is b**

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**Answer for Question No 54. is c**

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**Answer for Question No 55. is d**

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**Answer for Question No 56. is a**

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**Answer for Question No 57. is b**

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**Answer for Question No 58. is b**

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**Answer for Question No 59. is b**

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**Answer for Question No 60. is c**

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**Q.no 1. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

19

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 2. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 3. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

**B : virtual memory**

C : auxiliary memory

D : secondary memory

**Q.no 4. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

**D : locality of reference is applicable to the process**

**Q.no 5. Effective access time is directly proportional to**

A : memory access time

**B : page-fault rate**

C : hit ratio

D : none of the mentioned

**Q.no 6. Which layer deals with the logical structure of files and with the operations that can be**

**specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 7. On a movable head system, the time it takes to position the head at the track is known as**

A : seek time

B : rotational delay

C : access time

D : Transfer time

**Q.no 8. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use**

D : Optimal page replacement policy

**Q.no 9. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 10. syntax analyzer or parser takes the input from a \_\_\_\_\_**

**A : Lexical analyser**

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 11. The end of a macro can be represented by the directive**

A : END

B : ENDS

C : MEND

D : ENDD

**Q.no 12. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 13. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

D : Loader

**Q.no 14. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 15. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 16. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 17. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 18. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

D : Least Recently used

**Q.no 19. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 20. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 21. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

D : defining a macro

**Q.no 22. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 23. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 24. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 25. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 26. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 27. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 28. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 29. The offset ‘d’ of the logical address must be**

A : greater than segment limit

B : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 30. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 31. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 32. Loader is a program that**

- A : places programs into memory and prepares them for execution
- B : automates the translation of assembly language into machine language
- C : accepts a program written in a high level language and produces an object program
- D : appears to execute a source program as if it were machine language

**Q.no 33. Which one is a lexer Generator**

A : YACC

B : BISON

**C : FLEX**

D : Iburg

**Q.no 34. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 35. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

**B : user level thread**

C : process

D : priority Process

**Q.no 36. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 37. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 38. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 39. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 40. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 41. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 42. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 43. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 44. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 45. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 46. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 47. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 48. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 49. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 50. How Sequential access method works on random access devices.**

**A : works well**

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 51. The translator which translates high level language to machine code is**

**A : compiler**

B : assembler

C : loader

D : interpreter

**Q.no 52. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 53. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 54. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 55. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 56. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

**C : FIFO**

D : Both optimal replacement and FIFO

**Q.no 57. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B : A program that appears to execute a source program as if it were machine language**

C : A program that automate the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 58. If the wait for graph contains a cycle**

A : then a deadlock does not exist

**B : then a deadlock exists**

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 59. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 60. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

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**Answer for Question No 1. is b**

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**Answer for Question No 2. is c**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is d**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is a**

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**Answer for Question No 8. is c**

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**Answer for Question No 9. is b**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is c**

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**Answer for Question No 12. is d**

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**Answer for Question No 13. is d**

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**Answer for Question No 14. is c**

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**Answer for Question No 15. is d**

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**Answer for Question No 16. is a**

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**Answer for Question No 17. is a**

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**Answer for Question No 18. is d**

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**Answer for Question No 19. is a**

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**Answer for Question No 20. is d**

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**Answer for Question No 21. is d**

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**Answer for Question No 22. is c**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is b**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is d**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is c**

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**Answer for Question No 34. is a**

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**Answer for Question No 35. is b**

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**Answer for Question No 36. is a**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is b**

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**Answer for Question No 41. is c**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is d**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is c**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is a**

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### **Answer for Question No 51. is a**

### **Answer for Question No 52. is b**

**Answer for Question No 53. is b**

**Answer for Question No 54. is c**

**Answer for Question No 55. is d**

**Answer for Question No 56. is c**

**Answer for Question No 57. is b**

**Answer for Question No 58. is b**

### **Answer for Question No 59. is a**

**Answer for Question No 60. is b**

**Q.no 1. The advantage of I/O mapped devices to memory mapped is**

20

- A : The former offers faster transfer of data
- B : The devices connected using I/O mapping have a bigger buffer space
- C : The devices have to deal with fewer address lines
- D : No advantage as such

**Q.no 2. A model statement contains call for another macro is called as**

- A : referential macro call
- B : nested macro call
- C : inbuilt macro call
- D : inherited macro call

**Q.no 3. Which of the following is not an intermediate code form?**

- A : Postfix notation
- B : Syntax trees
- C : Three address codes
- D : Prefix notation

**Q.no 4. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

- A : first-come, first-served scheduling
- B : shortest job scheduling
- C : priority scheduling
- D : Round Robin

**Q.no 5. Which statement declare the name of macro.**

- A : macro prototype
- B : macro definition
- C : macro identification
- D : macro call

**Q.no 6. The interval from the time of submission of a process to the time of completion is termed**

**as**

A : waiting time

**B : turnaround time**

C : response time

D : throughput

**Q.no 7. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

**D : Operating System**

**Q.no 8. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

**B : round robin scheduling algorithm**

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 9. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

**B : Logical I/O**

C : Device I/O

D : Scheduling and control

**Q.no 10. Assembly language programs are written using**

A : Hex code

**B : Mnemonics**

C : ASCII code

D : C Language

**Q.no 11. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 12. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 13. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 14. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

C : A stream of tokens

D : A parse tree

**Q.no 15. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 16. The pager concerns with the**

A : entire thread

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 17. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

**D : Both 1 & 3**

**Q.no 18. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

**C : syntax analysis**

D : code optimization

**Q.no 19. Time sharing system is implemented using**

A : FCFS

B : SJF

**C : RR**

D : priority

**Q.no 20. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

**D : Left to right and right most derivation in reverse**

**Q.no 21. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 22.** \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 23.** The concept in which a process is copied into the main memory from the secondary memory according to the requirement.

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 24.** Orders are processed in the sequence they arrive if , this rule sequences the jobs.

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 25.** With round robin scheduling algorithm in a time shared system

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 26.** When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 27. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 28. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 29. File type can be represented by**

**A : file extension**

B : file identifier

C : file name

D : none of the mentioned

**Q.no 30. Shell is the exclusive feature of**

A : Dos

**B : Unix**

C : System software

D : Application software

**Q.no 31. Which of the following isn't a part of the file directory?**

A : Attributes

**B : Protocol**

C : Location

D : Ownership

**Q.no 32. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 33. To obtain better memory utilization, dynamic loading is used With dynamic loading, a routine is not loaded until it is called For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 34. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

B : Preemptive scheduling

C : All of the mentioned

D : processes are classified into groups

**Q.no 35. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 36. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 37. A process is thrashing if****A : it is spending more time paging than executing**

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 38. The portion of the process scheduler in an operating system that dispatches processes is concerned with****A : assigning ready processes to CPU**

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 39. Linking is process of binding**

A : Internal part of a program

B : external functional call

**C : External reference to the correct link time address**

D : None of the above

**Q.no 40. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

**B : it helps to reduce the size of page table needed to implement the virtual address space of a process**

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 41. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 42. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 43. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 44. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 45. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 46. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 47. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 48. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 & 3

**Q.no 49. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

**D : yet another compiler compiler**

**Q.no 50. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

**A : Semantic analysis**

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 51. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

**A : Identifier**

B : Number

C : Keyword

D : operator

**Q.no 52. The minimum number of page frames that must be allocated to a running process in a**

**virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 53. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 54. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 55. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 56. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 57. The valid – invalid bit, in this case, when valid indicates?**

- A : the page is not legal
- B : the page is illegal
- C : the page is in memory
- D : the page is not in memory

**Q.no 58. The translator which translates high level language to machine code is**

- A : compiler
- B : assembler
- C : loader
- D : interpreter

**Q.no 59. Which method on free space management, each block is assigned in a reserved portion of the disk.**

- A : Bit tables
- B : Chained Free Portions
- C : Indexing
- D : Free Block List

**Q.no 60. Libraries that are loaded and unloaded as and when needed is called as**

- A : Static Linking library
- B : Dynamic linking library
- C : load time linking library
- D : Both 1 & 2

20

**Answer for Question No 1. is c**

**Answer for Question No 2. is b**

**Answer for Question No 3. is d**

**Answer for Question No 4. is a**

**Answer for Question No 5. is a**

**Answer for Question No 6. is b**

**Answer for Question No 7. is d**

**Answer for Question No 8. is b**

**Answer for Question No 9. is b**

**Answer for Question No 10. is b**

**Answer for Question No 11. is a**

**Answer for Question No 12. is b**

**Answer for Question No 13. is c**

**Answer for Question No 14. is c**

**Answer for Question No 15. is b**

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**Answer for Question No 16. is a**

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**Answer for Question No 17. is d**

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**Answer for Question No 18. is c**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is d**

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**Answer for Question No 21. is d**

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**Answer for Question No 22. is c**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is a**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is d**

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**Answer for Question No 34. is b**

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**Answer for Question No 35. is d**

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**Answer for Question No 36. is b**

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**Answer for Question No 37. is a**

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**Answer for Question No 38. is a**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is b**

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**Answer for Question No 41. is c**

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**Answer for Question No 42. is a**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is c**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is b**

**Answer for Question No 49. is d**

### **Answer for Question No 50. is a**

**Answer for Question No 51. is a**

### **Answer for Question No 52. is a**

### **Answer for Question No 53. is c**

**Answer for Question No 54. is b**

**Answer for Question No 55. is b**

**Answer for Question No 56. is a**

**Answer for Question No 57. is c**

**Answer for Question No 58. is a**

**Answer for Question No 59. is d**

**Answer for Question No 60. is b**

**Q.no 1. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

21

A : Myfile.e

**B : Myfile.yy.c**

C : Myfile.lex

D : Myfile.obj

**Q.no 2. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 3. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 4. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

**D : DMA**

**Q.no 5. Which technique is used for temporarily removing inactive programs from the memory of computer system**

**A : Swapping**

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 6. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

C : An illusion of extremely large main memory

D : A type of memory used in super computers

**Q.no 7. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 8. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 9. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 10. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 11. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 12. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

**B : LIFO (Last in First out)**

C : FILO rule (First in last out)

D : None of the above

**Q.no 13. In memory-mapped I/O**

**A : The I/O devices and the memory share the same address space**

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 14. The last statement of the source program should be**

A : Stop

B : Return

C : OP

**D : End**

**Q.no 15. To access services from OS, an interface is provided Called as**

**A : System call**

B : API

C : library

D : shell

**Q.no 16. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 17. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

**D : anywhere in a program**

**Q.no 18. Expansion time variables are used**

A : Before expansion of macro calls

**B : only during expansion of macro calls**

C : After expansion of macro calls

D : Any one of the above

**Q.no 19. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

**B : blocking I/O**

C : asynchronous I/O

D : synchronous I/O

**Q.no 20. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 21. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

**D : defining a macro**

**Q.no 22. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 23. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 24. Way of specifying arguments in instruction is**

A : instruction format

**B : addressing modes**

C : both 1 & 2

D : function

**Q.no 25. Format of macro call is**

A : <macro name> [<actual parameter spec>,...]

B : <macro name> [<formal parameter spec>,...]

C : <macro name>

D : <call macro>

**Q.no 26. Absolute loader loads object code in memory from**

**A : Fixed location given by proframmer**

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 27. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 28. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 29. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 30. Which of the following derivation a top-down parser use while parsing an input string?  
The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 31. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 32. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

D : protection bit with each page

**Q.no 33. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 34. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 35. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 36. Input of Lex is ?**

A : set to regular expression

B : statement

C : Numeric data

D : ASCII data

**Q.no 37. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 38. System softwares are used to**

- A : bridge gap between different applications
- B : bridge gap between different users
- C : bridge gap between programmer and system**
- D : bridge gap between different systems

**Q.no 39. Operating system is**

- A : system software**
- B : application software
- C : both 1 & 2
- D : not a software

**Q.no 40. System programmer needs**

- A : knowledge of only system
- B : knowledge of only programming
- C : knowledge of both system and application programming**
- D : knowledge of hardware

**Q.no 41. RLD in Direct linking loader stands for**

- A : Redirection and Load Directory
- B : Relocation & Linkage Directory**
- C : Relocation and Load Directory
- D : Redirection and Linkage Directory

**Q.no 42. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

- A : Optimal replacement
- B : LRU
- C : FIFO**
- D : Both optimal replacement and FIFO

**Q.no 43. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 44. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 45. How Sequential access method works on random access devices.**

**A : works well**

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 46. In a two pass assembler the object code generation is done during the ?**

**A : Second pass**

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 47. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 48. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 49. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 50. If the wait for graph contains a cycle**

A : then a deadlock does not exist

**B : then a deadlock exists**

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 51. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 52. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 53. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 54. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 55. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 56. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 57. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 58. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

**C : Stack & Counters**

D : Registers

**Q.no 59. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 60. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

**C : PL domain and execution domain**

D : PL domain only

**Answer for Question No 1. is b**

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**Answer for Question No 2. is b**

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**Answer for Question No 3. is c**

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**Answer for Question No 4. is d**

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**Answer for Question No 5. is a**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is a**

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**Answer for Question No 9. is b**

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**Answer for Question No 10. is d**

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**Answer for Question No 11. is a**

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**Answer for Question No 12. is b**

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**Answer for Question No 13. is a**

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**Answer for Question No 14. is d**

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**Answer for Question No 15. is a**

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**Answer for Question No 16. is c**

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**Answer for Question No 17. is d**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is b**

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**Answer for Question No 20. is d**

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**Answer for Question No 21. is d**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is c**

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**Answer for Question No 24. is b**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is d**

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**Answer for Question No 28. is c**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is a**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is d**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is a**

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**Answer for Question No 35. is a**

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**Answer for Question No 36. is a**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is c**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is a**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is d**

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**Answer for Question No 49. is c**

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**Answer for Question No 50. is b**

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**Answer for Question No 51. is a**

**Answer for Question No 52. is a**

**Answer for Question No 53. is c**

**Answer for Question No 54. is b**

### **Answer for Question No 55. is a**

**Answer for Question No 56. is c**

### **Answer for Question No 57. is a**

**Answer for Question No 58. is c**

**Answer for Question No 59. is c**

**Answer for Question No 60. is c**

**Q.no 1. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

**B : Single buffer**

C : Linear buffer

D : Circular buffer

**Q.no 2. It is used as an index into the page table.**

A : frame bit

**B : page number**

C : page offset

D : frame offset

**Q.no 3. which algo. Is nonpreemptive**

A : SJF-P

**B : FCFS**

C : RR

D : Priority

**Q.no 4. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 5. Literal table stores**

**A : Numbers from code**

B : variables from code

C : instruction

D : Opcodes

**Q.no 6. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 7. Which of the following type of software should be used if you need to create, edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 8. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 9. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

C : Single BUS structure

D : Node to Node BUS structure

**Q.no 10. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

D : Operating System

**Q.no 11. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 12. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 13. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 14. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

B : currently running process

C : parent process

D : init process

**Q.no 15. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 16. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 17. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 18. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 19. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

C : The devices have to deal with fewer address lines

D : No advantage as such

**Q.no 20. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 21. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

**B : Indexed allocation**

C : Contiguous allocation

D : Variable allocation

**Q.no 22. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

**D : user programs can implement dynamic loading without any special support from hardware or operating system**

**Q.no 23. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

**D : Both A and B**

**Q.no 24. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

**B : Syntax analysis**

C : . Semantic analysis

D : Structure analysis

**Q.no 25. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

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A : overwrites the word

B : overwrites the functionality

**C : generates an error**

D : something else

**Q.no 26. The offset ‘d’ of the logical address must be**

A : greater than segment limit

**B : between 0 and segment limit**

C : between 0 and the segment number

D : greater than the segment number

**Q.no 27. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 28. With round robin scheduling algorithm in a time shared system**

**A : using very large time slices converts it into First come First served scheduling algorithm**

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 29. Linking is process of binding**

A : Internal part of a program

B : external functional call

**C : External reference to the correct link time address**

D : None of the above

**Q.no 30. Process are classified into different groups in**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 31. which of these is not a pseudocode/assembler directive**

A : USING

**B : BALR**

C : DROP

D : ORG

**Q.no 32. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

B : Shortest service time first

C : Priority by process

D : Random scheduling

**Q.no 33. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 34. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 35. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 36. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 37. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 38. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 39. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

C : valid – invalid

D : access

**Q.no 40. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

B : SJF – Shortest Job First

C : RR – Round Robin

D : priority

**Q.no 41. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 42. Using a pager**

- A : increases the swap time
- B : decreases the swap time
- C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 43. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

- A : the instruction set architecture
- B : page size
- C : physical memory size
- D : number of processes in memory

**Q.no 44. Libraries that are loaded and unloaded as and when needed is called as**

- A : Static Linking library
- B : Dynamic linking library
- C : load time linking library

D : Both 1 & 2

**Q.no 45. YACC stands for**

- A : yet accept compiler constructs
- B : yet accept compiler compiler
- C : yet another compiler constructs
- D : yet another compiler compiler

**Q.no 46. Which method on free space management, each block is assigned in a reserved portion of the disk.**

- A : Bit tables
- B : Chained Free Portions
- C : Indexing
- D : Free Block List

**Q.no 47. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 48. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 49. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 50. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 51. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 52. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 53. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 54. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 55. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 56. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 57. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 &amp; 3

**Q.no 58. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 59. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs****A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 60. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

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**Answer for Question No 1. is b**

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**Answer for Question No 2. is b**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is b**

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**Answer for Question No 5. is a**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is a**

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**Answer for Question No 8. is b**

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**Answer for Question No 9. is c**

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**Answer for Question No 10. is d**

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**Answer for Question No 11. is c**

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**Answer for Question No 12. is b**

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**Answer for Question No 13. is b**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is b**

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**Answer for Question No 16. is d**

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**Answer for Question No 17. is a**

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**Answer for Question No 18. is a**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is d**

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**Answer for Question No 23. is d**

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**Answer for Question No 24. is b**

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**Answer for Question No 25. is c**

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**Answer for Question No 26. is b**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is c**

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**Answer for Question No 30. is a**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is c**

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**Answer for Question No 35. is b**

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**Answer for Question No 36. is d**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is b**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is b**

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**Answer for Question No 45. is d**

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**Answer for Question No 46. is d**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is c**

**Answer for Question No 51.** is a

**Answer for Question No 52.** is a

**Answer for Question No 53.** is b

**Answer for Question No 54.** is c

**Answer for Question No 55.** is a

**Answer for Question No 56.** is a

**Answer for Question No 57.** is b

**Answer for Question No 58.** is b

**Answer for Question No 59.** is a

**Answer for Question No 60.** is d

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**Q.no 1. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 2. In priority scheduling algorithm**

A : CPU is allocated to the process with highest priority

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 3. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 4. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use)

B : FIFO policy (First in first out)

C : RU policy (Recurrently use)

D : Optimal page replacement policy

**Q.no 5. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

D : Loader

**Q.no 6. Assembly language programs are written using**

A : Hex code

**B : Mnemonics**

C : ASCII code

D : C Language

**Q.no 7. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

**A : first-come, first-served scheduling**

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 8. Page fault frequency in an operating system is reduced when the**

A : processes tend to be I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

**D : locality of reference is applicable to the process**

**Q.no 9. Relocatable programs**

A : cannot be used with fixed partitions

**B : can be loaded almost anywhere in memory**

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 10. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 11. Output of pass 1 assembler is**

A : object code

**B : intermediate code**

C : assembly language code

D : machine code

**Q.no 12. A model statement contains call for another macro is called as**

A : referential macro call

**B : nested macro call**

C : inbuilt macro call

D : inherited macro call

**Q.no 13. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

**D : anywhere in a program**

**Q.no 14. On a movable head system, the time it takes to position the head at the track is known as**

**A : seek time**

B : rotational delay

C : access time

D : Transfer time

**Q.no 15. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

**B : blocking I/O**

C : asynchronous I/O

D : synchronous I/O

**Q.no 16. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 17. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

**D : Prefix notation****Q.no 18. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

A : Myfile.e

**B : Myfile.yy.c**

C : Myfile.lex

D : Myfile.obj

**Q.no 19. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

**B : turnaround time**

C : response time

D : throughput

**Q.no 20. In assembler design memory allocation to symbols is done in****A : pass 1 of assembler**

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 21. Which one is a lexer Generator**

A : YACC

B : BISON

**C : FLEX**

D : Ibburg

**Q.no 22. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

**C : bridge gap between programmer and system**

D : bridge gap between different systems

**Q.no 23. Assembler processes**

A : any language

**B : assembly language**

C : c language

D : high level language

**Q.no 24. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

**D : Both 1 & 2**

**Q.no 25. Which of the following table is used to identify macro calls?**

**A : Macro Name table**

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 26. In multilevel feedback scheduling algorithm**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 27. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

**C : MACRO**

D : none of the mentioned

**Q.no 28. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

**A : Simultaneous access**

B : Compaction

C : External Fragmentation

D : Division

**Q.no 29. Operating system is**

**A : system software**

B : application software

C : both 1 & 2

D : not a software

**Q.no 30. In which disk information is recorded magnetically on platters.**

**A : magnetic disks**

B : electrical disks

C : assemblies

D : cylinders

**Q.no 31. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 32. System programmer needs**

- A : knowledge of only system
- B : knowledge of only programming
- C : knowledge of both system and application programming
- D : knowledge of hardware

**Q.no 33. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 34. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 35. Each entry in a translation lookaside buffer (TL) consists of**

**A : key**

B : value

C : bit value

D : constant

**Q.no 36. File type can be represented by**

**A : file extension**

B : file identifier

C : file name

D : none of the mentioned

**Q.no 37. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 38. A self relocating program in one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself perform the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 39. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 40. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 41. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 42. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 43. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 44. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 45. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 46. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 47. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 48. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 49. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 50. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 51. How Sequential access method works on random access devices.**

A : works well

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 52. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 53. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 54. Static memory allocation is typically performed during**

**A : compilation**

B : execution

C : loading

D : linking

**Q.no 55. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 56. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 57. If the wait for graph contains a cycle**

A : then a deadlock does not exist

**B : then a deadlock exists**

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 58. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 59. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 60. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

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**Answer for Question No 1. is a**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is a**

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**Answer for Question No 4. is c**

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**Answer for Question No 5. is d**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is a**

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**Answer for Question No 8. is d**

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**Answer for Question No 9. is b**

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**Answer for Question No 10. is b**

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**Answer for Question No 11. is b**

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**Answer for Question No 12. is b**

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**Answer for Question No 13. is d**

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**Answer for Question No 14. is a**

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**Answer for Question No 15. is b**

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**Answer for Question No 16. is c**

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**Answer for Question No 17. is d**

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**Answer for Question No 18. is b**

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**Answer for Question No 19. is b**

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**Answer for Question No 20. is a**

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**Answer for Question No 21. is c**

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**Answer for Question No 22. is c**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is d**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is c**

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**Answer for Question No 28. is a**

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**Answer for Question No 29. is a**

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**Answer for Question No 30. is a**

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**Answer for Question No 31. is b**

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**Answer for Question No 32. is c**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is c**

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**Answer for Question No 35. is a**

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**Answer for Question No 36. is a**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is c**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is d**

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**Answer for Question No 41. is c**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is c**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is b**

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**Answer for Question No 50. is b**

**Answer for Question No 51. is a**

**Answer for Question No 52. is a**

**Answer for Question No 53. is c**

**Answer for Question No 54. is a**

**Answer for Question No 55. is b**

**Answer for Question No 56. is c**

**Answer for Question No 57. is b**

**Answer for Question No 58. is b**

### **Answer for Question No 59. is c**

**Answer for Question No 60. is b**

**Q.no 1. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

- A : all process
- B : currently running process**

- C : parent process
- D : init process

**Q.no 2. Which technique is used for temporarily removing inactive programs from the memory of computer system**

- A : Swapping**
- B : Spooling
- C : Semaphore
- D : Scheduler

**Q.no 3. LRU stands for?**

- A : Less Recently used
- B : Least Recurrently used
- C : Least Randomly used
- D : Least Recently used**

**Q.no 4. To access services from OS, an interface is provided Called as**

- A : System call**
- B : API
- C : library
- D : shell

**Q.no 5. It is used as an index into the page table.**

- A : frame bit
- B : page number**
- C : page offset
- D : frame offset

**Q.no 6. The purpose of the ORIGIN directive is,**

- A : To indicate the purpose of the code
- B : To indicate the starting of the computation code
- C : To indicate the starting position in memory, where the program block is to be stored**
- D : To list the locations of all the registers used

**Q.no 7. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

- A : Double buffer
- B : Single buffer**
- C : Linear buffer
- D : Circular buffer

**Q.no 8. In memory-mapped I/O**

- A : The I/O devices and the memory share the same address space**
- B : The I/O devices have a separate address space
- C : The memory and I/O devices have an associated address space
- D : A part of the memory is specifically set aside for the I/O operation

**Q.no 9. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

- A : Directory Management
- B : Logical I/O**
- C : Device I/O
- D : Scheduling and control

**Q.no 10. The last statement of the source program should be**

- A : Stop
- B : Return
- C : OP
- D : End**

**Q.no 11. Which of the following is used for grouping of characters into tokens?**

A : Parser

B : Code optimization

C : Code generator

D : Lexical analyser

**Q.no 12. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 13. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

C : syntax analysis

D : code optimization

**Q.no 14. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

C : An illusion of extremely large main memory

D : A type of memory used in super computers

**Q.no 15. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 16. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

B : ready queue

C : cpu

D : secondary storage

**Q.no 17. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 18. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

D : Both 1 & 3

**Q.no 19. The pager concerns with the**

A : entire thread

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 20. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 21. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 22. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 23. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

**D : protection bit with each page**

**Q.no 24. Lexemes can be referred to as**

A : elements of lexicography

**B : sequence of alphanumeric characters in a token**

C : lexical errors

D : none of the mentioned

**Q.no 25. Input of Lex is ?**

**A : set to regular expression**

B : statement

C : Numeric data

D : ASCII data

**Q.no 26. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

**B : Shortest Job First**

C : Earliest Deadline First

D : Longest Job First

**Q.no 27. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

- A : it reduces the memory access time to read or write a memory location
- B : it helps to reduce the size of page table needed to implement the virtual address space of a process**
- C : it is required by the translation lookaside buffer
- D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 28. The real difficulty with SJF in short term scheduling is**

- A : it is too good an algorithm
- B : knowing the length of the next CPU request**
- C : it is too complex to understand
- D : it is too complex to implement

**Q.no 29. When the valid – invalid bit is set to valid, it means that the associated page**

- A : is in the TLB
- B : has data in it
- C : is in the process's logical address space**
- D : is the system's physical address space

**Q.no 30. Yacc resolves conflicts by of type ?**

- A : Reduce - Reduce
- B : Shift - Reduce
- C : Shift - Shift
- D : Both A and B**

**Q.no 31. Linking is process of binding**

- A : Internal part of a program
- B : external functional call
- C : External reference to the correct link time address**
- D : None of the above

**Q.no 32. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

**B : SJF – Shortest Job First**

C : RR – Round Robin

D : priority

**Q.no 33. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 34. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

**B : Syntax analysis**

C : . Semantic analysis

D : Structure analysis

**Q.no 35. Format of macro call is**

A : <macro name> [<actual parameter spec>,...]

B : <macro name> [<formal parameter spec>,...]

C : <macro name>

D : <call macro>

**Q.no 36. Which of the following isn't a part of the file directory?**

A : Attributes

**B : Protocol**

C : Location

D : Ownership

**Q.no 37. Pass-1 of two pass assembler is used for**

A : synthesizing code

B : gathering information

C : processing macro

D : expanding macro

**Q.no 38. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 39. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 40. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 41. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 42. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN****Q.no 43. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 44. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '****A : Identifier**

B : Number

C : Keyword

D : operator

**Q.no 45. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Iburg

D : both 1 &amp; 3

**Q.no 46. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by****A : the instruction set architecture**

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 47. Using a pager**

A : increases the swap time

B : decreases the swap time

**C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 48. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 49. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 50. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

**A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 51. An assembler is**

A : programming language dependent

B : syntax dependant

**C : machine dependant**

D : data dependant

**Q.no 52. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

**C : the page is in memory**

D : the page is not in memory

**Q.no 53. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 54. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 55. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 56. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 57. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 58. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 59. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 60. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

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**Answer for Question No 1. is b**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is d**

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**Answer for Question No 4. is a**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is b**

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**Answer for Question No 8. is a**

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**Answer for Question No 9. is b**

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**Answer for Question No 10. is d**

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**Answer for Question No 11. is d**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is c**

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**Answer for Question No 14. is c**

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**Answer for Question No 15. is a**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is a**

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**Answer for Question No 18. is d**

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**Answer for Question No 19. is a**

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**Answer for Question No 20. is a**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is b**

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**Answer for Question No 23. is d**

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**Answer for Question No 24. is b**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is b**

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**Answer for Question No 27. is b**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is c**

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**Answer for Question No 30. is d**

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**Answer for Question No 31. is c**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is b**

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**Answer for Question No 35. is a**

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**Answer for Question No 36. is b**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is a**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is b**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is d**

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**Answer for Question No 43. is b**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is a**

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**Answer for Question No 47. is c**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is c**

**Answer for Question No 52. is c**

**Answer for Question No 53. is a**

### **Answer for Question No 54. is a**

**Answer for Question No 55. is d**

**Answer for Question No 56. is d**

**Answer for Question No 57. is a**

### **Answer for Question No 58. is b**

**Answer for Question No 59. is c**

**Answer for Question No 60. is b**

**Answer for Question No 60. is b**

25

**Q.no 1. Relocatable programs**

- A : cannot be used with fixed partitions
- B : can be loaded almost anywhere in memory**

- C : do not need a linker
- D : can be loaded only at one specific location

**Q.no 2. which of the following is not a type of translator?**

- A : assembler
- B : compiler
- C : loader**
- D : interpreter

**Q.no 3. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

- A : Exceptions
- B : Signal handling
- C : Interrupts**
- D : DMA

**Q.no 4. When expression sum=3+2 is tokenized then what is the token category of 3**

- A : Identifier
- B : Assignment operator
- C : Integer Literal**
- D : Addition Operator

**Q.no 5. Which of the following system software resides in main memory always ?**

- A : Text editor
- B : Assembler
- C : Linker

**D : Loader****Q.no 6. The method which offers higher speeds of I/O transfers is**

- A : Interrupts
- B : Memory mapping
- C : Program-controlled I/O
- D : DMA**

**Q.no 7. A macro is**

- A : a small program inside a program
- B : set of special instructions
- C : a unit of specification for program generation through expansion**
- D : same as function

**Q.no 8. Assembly language programs are written using**

- A : Hex code
- B : Mnemonics**
- C : ASCII code
- D : C Language

**Q.no 9. Which of the following is not an intermediate code form?**

- A : Postfix notation
- B : Syntax trees
- C : Three address codes
- D : Prefix notation**

**Q.no 10. Which amongst the following is not a valid page replacement policy?**

- A : LRU policy (Least Recently Use)
- B : FIFO policy (First in first out)
- C : RU policy (Recurrently use)**
- D : Optimal page replacement policy

**Q.no 11. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 12. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 13. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 14. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

A : Myfile.e

B : Myfile.yy.c

C : Myfile.lex

D : Myfile.obj

**Q.no 15. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

D : Operating System

**Q.no 16. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 17. SJF can be**

A : preemptive only

B : nonpreemptive only

**C : either preemptive or nonpreemptive**

D : sequential

**Q.no 18. In priority scheduling algorithm****A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 19. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

**B : round robin scheduling algorithm**

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 20. Which of the following type of software should be used if you need to create, edit and print document ?****A : word processor**

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 21. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 22. Each entry in a translation lookaside buffer (TL consists of****A : key**

B : value

C : bit value

D : constant

**Q.no 23. Shell is the exclusive feature of**

A : Dos

**B : Unix**

C : System software

D : Application software

**Q.no 24. Absolute loader loads object code in memory from****A : Fixed location given by proframmer**

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 25. which of these is not a pseudocode/assembler directive**

A : USING

**B : BALR**

C : DROP

D : ORG

**Q.no 26. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

**D : user programs can implement dynamic loading without any special support from hardware or operating system**

**Q.no 27. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 28. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 29. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 30. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 31. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 32. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

**B : user level thread**

C : process

D : priority Process

**Q.no 33. The offset ‘d’ of the logical address must be**

A : greater than segment limit

**B : between 0 and segment limit**

C : between 0 and the segment number

D : greater than the segment number

**Q.no 34. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 35. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

**C : Scanner**

D : Loader

**Q.no 36. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

**C : first come, first served**

D : critical ratio

**Q.no 37. What is Scheduling?**

A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

### **Q.no 38. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

### **Q.no 39. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

### **Q.no 40. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

### **Q.no 41. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 42. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

- A : Counters
- B : RAM & Registers

**C : Stack & Counters**

- D : Registers

**Q.no 43. A compiler bridges the semantic gap between .....**

- A : PL domain and storage domain
- B : execution domain and syntax domain
- C : PL domain and execution domain**
- D : PL domain only

**Q.no 44. A grammar that produces more than one parse tree for some sentence is called**

- A : Ambiguous**
- B : Unambiguous
- C : Regular
- D : None of these

**Q.no 45. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

- A : write ahead
- B : read ahead
- C : free-behind**
- D : add-front

**Q.no 46. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

- A : Indexed files
- B : Direct files**
- C : Sequential files
- D : Indexed Sequential files

**Q.no 47. How Sequential access method works on random access devices.**

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 48. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 49. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 50. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 51. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 52. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

- A : Optimal replacement
- B : LRU
- C : FIFO**
- D : Both optimal replacement and FIFO

**Q.no 53. In a two pass assembler the object code generation is done during the ?**

- A : Second pass**
- B : First pass
- C : Zeroth pass
- D : Not done by assembler

**Q.no 54. Segment replacement algorithms are more complex than page replacement algorithms because**

- A : Segments are better than pages
- B : Pages are better than segments
- C : Segments have variable sizes**
- D : Segments have fixed sizes

**Q.no 55. RLD in Direct linking loader stands for**

- A : Redirection and Load Directory
- B : Relocation & Linkage Directory**
- C : Relocation and Load Directory
- D : Redirection and Linkage Directory

**Q.no 56. An imperative statement**

- A : Reserves areas of memory and associates names with them
- B : Indicates an action to be performed during execution of assembled program**
- C : Indicates an action to be performed during optimization
- D : allocate space for literals

**Q.no 57. The linker is**

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**Answer for Question No 1. is b**

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**Answer for Question No 2. is c**

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**Answer for Question No 3. is c**

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**Answer for Question No 4. is c**

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**Answer for Question No 5. is d**

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**Answer for Question No 6. is d**

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**Answer for Question No 7. is c**

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**Answer for Question No 8. is b**

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**Answer for Question No 9. is d**

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**Answer for Question No 10. is c**

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**Answer for Question No 11. is d**

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**Answer for Question No 12. is c**

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**Answer for Question No 13. is b**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is d**

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**Answer for Question No 16. is c**

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**Answer for Question No 17. is c**

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**Answer for Question No 18. is a**

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**Answer for Question No 19. is b**

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**Answer for Question No 20. is a**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is a**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is d**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is d**

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**Answer for Question No 30. is d**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is b**

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**Answer for Question No 35. is c**

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**Answer for Question No 36. is c**

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**Answer for Question No 37. is a**

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**Answer for Question No 38. is c**

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**Answer for Question No 39. is b**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is c**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is b**

---

**Answer for Question No 47. is a**

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**Answer for Question No 48. is b**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is c**

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**Answer for Question No 51.** is a

**Answer for Question No 52.** is c

**Answer for Question No 53.** is a

**Answer for Question No 54.** is c

**Answer for Question No 55.** is b

**Answer for Question No 56.** is b

**Answer for Question No 57.** is b

**Answer for Question No 58.** is c

**Answer for Question No 59.** is a

**Answer for Question No 60.** is a

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

**Q.no 58. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 59. An edge from process Pi to Pj in a wait for graph indicates that**

**A : Pi is waiting for Pj to release a resource that Pi needs**

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 60. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

**A : Bit tables**

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 1. Expansion time variables are used**

- A : Before expansion of macro calls
- B : only during expansion of macro calls**
- C : After expansion of macro calls
- D : Any one of the above

**Q.no 2. The system is notified of a read or write operation by**

- A : Appending an extra bit of the address
- B : Enabling the read or write bits of the devices
- C : Raising an appropriate interrupt signal
- D : Sending a special signal along the BUS**

**Q.no 3. On a movable head system, the time it takes to position the head at the track is known as**

- A : seek time**
- B : rotational delay
- C : access time
- D : Transfer time

**Q.no 4. In memory-mapped I/O**

- A : The I/O devices and the memory share the same address space**
- B : The I/O devices have a separate address space
- C : The memory and I/O devices have an associated address space
- D : A part of the memory is specifically set aside for the I/O operation

**Q.no 5. LR stands for**

- A : Left to right
- B : Left to right reduction
- C : Right to left
- D : Left to right and right most derivation in reverse**

**Q.no 6. Which layer deals with the logical structure of files and with the operations that can be**

**specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 7. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 8. Effective access time is directly proportional to**

A : memory access time

**B : page-fault rate**

C : hit ratio

D : none of the mentioned

**Q.no 9. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

**C : A stream of tokens**

D : A parse tree

**Q.no 10. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

**B : Single buffer**

C : Linear buffer

D : Circular buffer

**Q.no 11. syntax analyzer or parser takes the input from a \_\_\_\_\_**

A : Lexical analyser

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 12. Page fault frequency in an operating system is reduced when the**

A : processes tend to be I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

D : locality of reference is applicable to the process

**Q.no 13. Which of the following is used for grouping of characters into tokens?**

A : Parser

B : Code optimization

C : Code generator

D : Lexical analyser

**Q.no 14. A process is moved to wait queue when I/O request is made with**

A : non-blocking I/O

B : blocking I/O

C : asynchronous I/O

D : synchronous I/O

**Q.no 15. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 16. Which technique is used for temporarily removing inactive programs from the memory of computer system**

A : Swapping

B : Spooling

C : Semaphore

D : Scheduler

### **Q.no 17. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

### **Q.no 18. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

### **Q.no 19. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

C : The devices have to deal with fewer address lines

D : No advantage as such

### **Q.no 20. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

### **Q.no 21. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 22. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 23. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

D : Circular SCAN

**Q.no 24. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 25. Format of macro call is**

A : <macro name> [<actual parameter spec>, ...]

B : <macro name> [<formal parameter spec>, ...]

C : <macro name>

D : <call macro>

**Q.no 26. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 27. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 28. A self relocating program in one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself performs the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 29. On free space management has the advantages that it is relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 30. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 31. Input of Lex is ?**

A : set to regular expression

B : statement

C : Numeric data

D : ASCII data

**Q.no 32. Which of the following isn't a part of the file directory?**

A : Attributes

**B : Protocol**

C : Location

D : Ownership

**Q.no 33. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

**B : Indexed allocation**

C : Contiguous allocation

D : Variable allocation

**Q.no 34. Input to code generator is**

A : Source code

**B : Intermediate code**

C : Target code

D : tokens

**Q.no 35. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

**B : it helps to reduce the size of page table needed to implement the virtual address space of a process**

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 36. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

**B : SJF – Shortest Job First**

C : RR – Round Robin

D : priority

**Q.no 37. Operating system is**

A : system software

B : application software

C : both 1 &amp; 2

D : not a software

**Q.no 38. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 39. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 40. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 41. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

**D : Free Block List**

**Q.no 42. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 43. An assembler is**

A : programming language dependent

B : syntax dependant

**C : machine dependant**

D : data dependant

**Q.no 44. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 45. Which of the following software tool is parser generator ?**

A : Lex

**B : Yacc**

C : Ibburg

D : both 1 & 3

**Q.no 46. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B : A program that appears to execute a source program as if it were machine language**

C : A program that automates the translation of

assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 47. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 48. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 49. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 50. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 51. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 52. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 53. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 54. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 55. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 56. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 57. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 58. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 59. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 60. How Sequential access method works on random access devices.**

A : works well

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Answer for Question No 1. is b**

**Answer for Question No 2. is d**

**Answer for Question No 3. is a**

**Answer for Question No 4. is a**

**Answer for Question No 5. is d**

**Answer for Question No 6. is b**

**Answer for Question No 7. is a**

**Answer for Question No 8. is b**

**Answer for Question No 9. is c**

**Answer for Question No 10. is b**

**Answer for Question No 11. is a**

**Answer for Question No 12. is d**

**Answer for Question No 13. is d**

**Answer for Question No 14. is b**

**Answer for Question No 15. is b**

**Answer for Question No 16. is a**

**Answer for Question No 17. is d**

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**Answer for Question No 18. is a**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is c**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is d**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is d**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is c**

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**Answer for Question No 29. is a**

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**Answer for Question No 30. is a**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is b**

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**Answer for Question No 34. is b**

**Answer for Question No 35. is b**

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**Answer for Question No 36. is b**

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**Answer for Question No 37. is a**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is d**

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**Answer for Question No 42. is b**

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**Answer for Question No 43. is c**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is b**

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**Answer for Question No 47. is a**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is d**

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**Answer for Question No 51. is a**

### **Answer for Question No 52. is a**

**Answer for Question No 53. is c**

### **Answer for Question No 54. is a**

### **Answer for Question No 55. is b**

**Answer for Question No 56. is b**

### **Answer for Question No 57. is c**

### **Answer for Question No 58. is d**

**Answer for Question No 59. is b**

**Answer for Question No 60. is a**

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**Q.no 1. Task of the lexical analysis phase is**

- A : to parse the source program into basic elements or tokens of the language
- B : checks that given statement is syntactically correct or not
- C : removes comments and white spaces
- D : Both 1 & 3**

**Q.no 2. To access services from OS, an interface is provided Called as**

- A : System call**
- B : API
- C : library
- D : shell

**Q.no 3. In which of the following page replacement policies Balady's anomaly occurs?**

- A : FIFO**
- B : LRU
- C : LFU
- D : NRU

**Q.no 4. The data-in register of I/O port is**

- A : Read by host to get input**
- B : Read by controller to get input
- C : Written by host to send output
- D : Written by host to start a command

**Q.no 5. Which module gives control of the CPU to the process selected by the short-term scheduler?**

- A : Dispatcher**
- B : interrupt
- C : scheduler
- D : interpreter

**Q.no 6. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 7. Which statement declare the name of macro.****A : macro prototype**

B : macro definition

C : macro identification

D : macro call

**Q.no 8. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 9. SJF can be**

A : preemptive only

B : nonpreemptive only

**C : either preemptive or nonpreemptive**

D : sequential

**Q.no 10. The last statement of the source program should be**

A : Stop

B : Return

C : OP

**D : End****Q.no 11. In priority scheduling algorithm****A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 12. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

**C : Interrupts**

D : DMA

**Q.no 13. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use**

D : Optimal page replacement policy

**Q.no 14. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

**D : Operating System**

**Q.no 15. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

**A : first-come, first-served scheduling**

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 16. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 17. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 18. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 19. Which of the following type of software should be used if you need to create, edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 20. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

**Q.no 21. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : . Semantic analysis

D : Structure analysis

**Q.no 22. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

**D : rotational latency**

**Q.no 23. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

**C : is in the process's logical address space**

D : is the system's physical address space

**Q.no 24. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

**C : Scanner**

D : Loader

**Q.no 25. Each entry in a translation lookaside buffer (TL) consists of**

**A : key**

B : value

C : bit value

D : constant

**Q.no 26. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 27. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 28. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

D : defining a macro

**Q.no 29. Pass-1 of two pass assmbler is used for**

A : synthesizing code

B : gathering information

C : processing macro

D : expanding macro

**Q.no 30. Absolute loader loads object code in memory from**

A : Fixed location given by proframmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 31. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 32. The policy used to select the disk I/O request that requires the least movement of the**<https://sppu.wheebox.com/WAC-3/allqusdownloadhtml.ils?testNo=5843&code=1052000&showTest=319&actForm=edit&set=30>

**disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 33. With round robin scheduling algorithm in a time shared system**

**A : using very large time slices converts it into First come First served scheduling algorithm**

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 34. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

**C : extension & name**

D : type & extension

**Q.no 35. File type can be represented by**

**A : file extension**

B : file identifier

C : file name

D : none of the mentioned

**Q.no 36. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

**C : valid – invalid**

D : access

**Q.no 37. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 38. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 39. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

C : MACRO

D : none of the mentioned

**Q.no 40. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 41. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 42. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 43. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 44. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 45. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 46. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 47. The linker is**

A : is same as the loader

**A : Bit tables**

C : is always used before programs are executed

D : translator

**Q.no 48. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

**A : Bit tables**

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 49. In a two pass assembler the object code generation is done during the ?**

**A : Second pass**

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 50. Static memory allocation is typically performed during**

**A : compilation**

B : execution

C : loading

D : linking

**Q.no 51. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

**A : resource allocation state**

B : system storage state

C : operating system

D : resources

**Q.no 52. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 53.** These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 54.** In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.

A : Bit tables

**B : Chained Free Portions**

C : Indexing

D : Free Block List

**Q.no 55.** A grammar that produces more than one parse tree for some sentence is called

**A : Ambiguous**

B : Unambiguous

C : Regular

D : None of these

**Q.no 56.** An edge from process Pi to Pj in a wait for graph indicates that

**A : Pi is waiting for Pj to release a resource that Pi needs**

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 57.** Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system

**will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 58. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 59. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

**C : Linker**

D : Assembler

**Q.no 60. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Answer for Question No 1. is d**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is a**

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**Answer for Question No 4. is a**

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**Answer for Question No 5. is a**

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**Answer for Question No 6. is c**

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**Answer for Question No 7. is a**

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**Answer for Question No 8. is c**

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**Answer for Question No 9. is c**

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**Answer for Question No 10. is d**

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**Answer for Question No 11. is a**

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**Answer for Question No 12. is c**

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**Answer for Question No 13. is c**

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**Answer for Question No 14. is d**

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**Answer for Question No 15. is a**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is a**

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**Answer for Question No 18. is c**

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**Answer for Question No 19. is a**

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**Answer for Question No 20. is d**

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**Answer for Question No 21. is b**

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**Answer for Question No 22. is d**

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**Answer for Question No 23. is c**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is c**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is d**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is a**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is c**

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**Answer for Question No 35. is a**

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**Answer for Question No 36. is c**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is c**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is b**

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**Answer for Question No 42. is c**

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**Answer for Question No 43. is c**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is c**

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**Answer for Question No 46. is d**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is a**

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**Answer for Question No 51. is a**

### **Answer for Question No 52. is b**

**Answer for Question No 53. is b**

**Answer for Question No 54. is b**

**Answer for Question No 55. is a**

**Answer for Question No 56. is a**

**Answer for Question No 57. is c**

### **Answer for Question No 58. is c**

### **Answer for Question No 59. is c**

**Answer for Question No 60. is b**

2B

**Q.no 1. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 2. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

**D : anywhere in a program**

**Q.no 3. syntax analyzer or parser takes the input from a \_\_\_\_\_**

**A : Lexical analyser**

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 4. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

**D : Sending a special signal along the BUS**

**Q.no 5. Effective access time is directly proportional to**

A : memory access time

**B : page-fault rate**

C : hit ratio

D : none of the mentioned

**Q.no 6. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

**B : turnaround time**

C : response time

D : throughput

**Q.no 7. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

**B : virtual memory**

C : auxiliary memory

D : secondary memory

**Q.no 8. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

**B : currently running process**

C : parent process

D : init process

**Q.no 9. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

**B : LIFO (Last in First out)**

C : FILO rule (First in last out)

D : None of the above

**Q.no 10. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

D : locality of reference is applicable to the process

### **Q.no 11. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

### **Q.no 12. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

C : The devices have to deal with fewer address lines

D : No advantage as such

### **Q.no 13. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

### **Q.no 14. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

### **Q.no 15. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 16. Which of the following system software resides in main memory always ?**

- A : Text editor
- B : Assembler
- C : Linker
- D : Loader**

**Q.no 17. which algo. Is nonpreemptive**

- A : SJF-P
- B : FCFS**
- C : RR
- D : Priority

**Q.no 18. In assembler design memory allocation to symbols is done in**

- A : pass 1 of assembler**
- B : pass 2 of assembler
- C : In both the passes
- D : at the time of synthesis

**Q.no 19. Time sharing system is implemented using**

- A : FCFS
- B : SJF
- C : RR**
- D : priority

**Q.no 20. Virtual memory is**

- A : An extremely large main memory
- B : An extremely large secondary memory
- C : An illusion of extremely large main memory**
- D : A type of memory used in super computers

**Q.no 21. Which of the following derivation a top-down parser use while parsing an input string?  
The input is assumed to be scanned in left to right order ?**

**A : Leftmost derivation**

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 22. Shell is the exclusive feature of**

A : Dos

**B : Unix**

C : System software

D : Application software

**Q.no 23. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 24. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

**D : protection bit with each page**

**Q.no 25. Way of specifying arguments in instruction is**

A : instruction format

**B : addressing modes**

C : both 1 & 2

D : function

**Q.no 26. In which disk information is recorded magnetically on platters.**

**A : magnetic disks**

B : electrical disks

C : assemblies

D : cylinders

**Q.no 27. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 28. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 29. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 30. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 31. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 32. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 33. Format of macro call is**

A : <macro name> [<actual parameter spec>,...]

B : <macro name> [<formal parameter spec>,...]

C : <macro name>

D : <call macro>

**Q.no 34. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 35. A self relocating program in one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself perform the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 36. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 37. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 38. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

B : Preemptive scheduling

C : All of the mentioned

D : processes are classified into groups

**Q.no 39. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

B : Preemptive scheduling

C : Shortest job first

D : First come First served

**Q.no 40. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 41. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 42. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 43. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

**D : yet another compiler compiler**

**Q.no 44. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 45. How Sequential access method works on random access devices.**

**A : works well**

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 46. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

**B : Page frame number**

C : Both virtual page number and page frame number

D : Access right information

**Q.no 47. Using a pager**

- A : increases the swap time
- B : decreases the swap time
- C : decreases the swap time & amount of physical memory needed**
- D : increases the amount of physical memory needed

**Q.no 48. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

- A : Identifier**
- B : Number
- C : Keyword
- D : operator

**Q.no 49. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

- A : resources currently available**
- B : processes that have previously been in the system
- C : resources currently allocated to each process
- D : future requests and releases of each process

**Q.no 50. The valid – invalid bit, in this case, when valid indicates?**

- A : the page is not legal
- B : the page is illegal
- C : the page is in memory**
- D : the page is not in memory

**Q.no 51. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

- A : page fault occurs**
- B : fatal error occurs
- C : segmentation fault occurs

D : no error occurs

**Q.no 52. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 53. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 54. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 55. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 56. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 57. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 58. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 59. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 60. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Answer for Question No 1. is b**

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**Answer for Question No 2. is d**

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**Answer for Question No 3. is a**

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**Answer for Question No 4. is d**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is b**

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**Answer for Question No 8. is b**

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**Answer for Question No 9. is b**

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**Answer for Question No 10. is d**

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**Answer for Question No 11. is b**

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**Answer for Question No 12. is c**

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**Answer for Question No 13. is a**

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**Answer for Question No 14. is b**

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**Answer for Question No 15. is c**

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**Answer for Question No 16. is d**

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**Answer for Question No 17. is b**

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**Answer for Question No 18. is a**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is a**

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**Answer for Question No 22. is b**

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**Answer for Question No 23. is b**

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**Answer for Question No 24. is d**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is a**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is a**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is d**

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**Answer for Question No 35. is c**

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**Answer for Question No 36. is c**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is b**

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**Answer for Question No 40. is a**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is b**

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**Answer for Question No 43. is d**

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**Answer for Question No 44. is c**

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**Answer for Question No 45. is a**

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**Answer for Question No 46. is b**

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**Answer for Question No 47. is c**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is c**

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**Answer for Question No 51. is a**

**Answer for Question No 52. is b**

**Answer for Question No 53. is c**

**Answer for Question No 54. is a**

**Answer for Question No 55. is b**

**Answer for Question No 56. is b**

**Answer for Question No 57. is a**

**Answer for Question No 58. is b**

**Answer for Question No 59. is b**

**Answer for Question No 60. is d**

**Q.no 1. Assembly language programs are written using**

- A : Hex code
- B : Mnemonics**
- C : ASCII code
- D : C Language

**Q.no 2. Which module gives control of the CPU to the process selected by the short-term scheduler?**

- A : Dispatcher**
- B : interrupt
- C : scheduler
- D : interpreter

**Q.no 3. which of the following is not a type of translator?**

- A : assembler
- B : compiler
- C : loader**
- D : interpreter

**Q.no 4. It is used as an index into the page table.**

- A : frame bit
- B : page number**
- C : page offset
- D : frame offset

**Q.no 5. Output of pass 1 assembler is**

- A : object code
- B : intermediate code**
- C : assembly language code
- D : machine code

**Q.no 6. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

- A : Assembler
- B : Linking loader**
- C : Cross compiler
- D : Load and Go

**Q.no 7. Expansion time variables are used**

- A : Before expansion of macro calls
- B : only during expansion of macro calls**
- C : After expansion of macro calls
- D : Any one of the above

**Q.no 8. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

- A : job queue
- B : ready queue**
- C : execution queue
- D : process queue

**Q.no 9. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

- A : first-come, first-served scheduling**
- B : shortest job scheduling
- C : priority scheduling
- D : Round Robin

**Q.no 10. Which of the following type of software should be used if you need to create, edit and print document ?**

- A : word processor**
- B : spreadsheet
- C : desktop publishing
- D : Unix

**Q.no 11. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

A : Myfile.e

**B : Myfile.yy.c**

C : Myfile.lex

D : Myfile.obj

**Q.no 12. On a movable head system, the time it takes to position the head at the track is known as**

**A : seek time**

B : rotational delay

C : access time

D : Transfer time

**Q.no 13. Which technique is used for temporarily removing inactive programs from the memory of computer system**

**A : Swapping**

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 14. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

**D : Operating System**

**Q.no 15. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 16. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

**B : round robin scheduling algorithm**

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 17. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 18. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

**D : Both 1 & 3**

**Q.no 19. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

**C : A stream of tokens**

D : A parse tree

**Q.no 20. Which of the following is used for grouping of characters into tokens?**

A : Parser

B : Code optimization

C : Code generator

**D : Lexical analyser**

**Q.no 21. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 22. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

D : defining a macro

**Q.no 23. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 24. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

C : MACRO

D : none of the mentioned

**Q.no 25. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 26. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 27. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 28. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 29. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 30. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 31. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

### **Q.no 32. Linking is process of binding**

A : Internal part of a program

B : external functional call

**C : External reference to the correct link time address**

D : None of the above

### **Q.no 33. What is Scheduling?**

**A : allowing a job to use the processor**

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

### **Q.no 34. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

**B : first executes the job that came in first in the queue**

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

### **Q.no 35. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

**D : Both A and B**

### **Q.no 36. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

**C : valid – invalid**

D : access

**Q.no 37. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

**C : bridge gap between programmer and system**

D : bridge gap between different systems

**Q.no 38. The offset ‘d’ of the logical address must be**

A : greater than segment limit

**B : between 0 and segment limit**

C : between 0 and the segment number

D : greater than the segment number

**Q.no 39. A process is thrashing if**

**A : it is spending more time paging than executing**

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 40. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 41. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

**A : Bit tables**

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 42. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 43. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 44. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 45. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 46. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 47. An imperative statement**

A : Reserves areas of memory and associates names with them

**B : Indicates an action to be performed during execution of assembled program**

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 48. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

**A : Semantic analysis**

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 49. In a two pass assembler the object code generation is done during the ?**

**A : Second pass**

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 50. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

**C : maximum**

D : approximate

**Q.no 51. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 52. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 53. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 54. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 55. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 56. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 57. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

**C : Stack & Counters**

D : Registers

**Q.no 58. A grammar that produces more than one parse tree for some sentence is called**

**A : Ambiguous**

B : Unambiguous

C : Regular

D : None of these

**Q.no 59. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

**C : FIFO**

D : Both optimal replacement and FIFO

**Q.no 60. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

D : translator

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**Answer for Question No 1. is b**

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**Answer for Question No 2. is a**

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**Answer for Question No 3. is c**

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**Answer for Question No 4. is b**

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**Answer for Question No 5. is b**

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**Answer for Question No 6. is b**

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**Answer for Question No 7. is b**

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**Answer for Question No 8. is b**

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**Answer for Question No 9. is a**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is b**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is a**

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**Answer for Question No 14. is d**

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**Answer for Question No 15. is c**

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**Answer for Question No 16. is b**

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**Answer for Question No 17. is a**

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**Answer for Question No 18. is d**

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**Answer for Question No 19. is c**

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**Answer for Question No 20. is d**

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**Answer for Question No 21. is c**

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**Answer for Question No 22. is d**

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**Answer for Question No 23. is a**

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**Answer for Question No 24. is c**

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**Answer for Question No 25. is a**

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**Answer for Question No 26. is c**

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**Answer for Question No 27. is a**

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**Answer for Question No 28. is d**

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**Answer for Question No 29. is c**

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**Answer for Question No 30. is c**

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**Answer for Question No 31. is a**

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**Answer for Question No 32. is c**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is b**

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**Answer for Question No 35. is d**

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**Answer for Question No 36. is c**

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**Answer for Question No 37. is c**

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**Answer for Question No 38. is b**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is c**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is a**

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**Answer for Question No 43. is c**

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**Answer for Question No 44. is b**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is b**

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**Answer for Question No 47. is b**

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**Answer for Question No 48. is a**

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**Answer for Question No 49. is a**

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**Answer for Question No 50. is c**

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**Answer for Question No 51. is c**

### **Answer for Question No 52. is a**

**Answer for Question No 53. is d**

**Answer for Question No 54. is c**

**Answer for Question No 55. is c**

### **Answer for Question No 56. is a**

### **Answer for Question No 57. is c**

**Answer for Question No 58. is a**

**Answer for Question No 59. is c**

**Answer for Question No 60. is b**

30

**Q.no 1. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use)

B : FIFO policy (First in first out)

**C : RU policy (Recurrently use)**

D : Optimal page replacement policy

**Q.no 2. The end of a macro can be represented by the directive**

A : END

B : ENDS

**C : MEND**

D : ENDD

**Q.no 3. A model statement contains call for another macro is called as**

A : referential macro call

**B : nested macro call**

C : inbuilt macro call

D : inherited macro call

**Q.no 4. The pager concerns with the****A : entire thread**

B : first page of a process

C : individual page of a process

D : entire process

**Q.no 5. process is trash****A : it spends more time paging than executing**

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 6. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 7. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 8. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 9. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

**Q.no 10. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 11. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 12. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 13. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 14. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

C : syntax analysis

D : code optimization

**Q.no 15. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 16. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 17. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

B : Logical I/O

C : Device I/O

D : Scheduling and control

**Q.no 18. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

C : An illusion of extremely large main memory

D : A type of memory used in super computers

**Q.no 19. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 20. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

C : The devices have to deal with fewer address lines

D : No advantage as such

**Q.no 21. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 22. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 23. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 24. Input of Lex is ?**

A : set to regular expression

B : statement

C : Numeric data

D : ASCII data

**Q.no 25. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 26. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 27. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 28. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : . Semantic analysis

D : Structure analysis

**Q.no 29. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 30. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 31. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 32. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

**B : Direct files**

C : Sequential files

D : Indexed Sequential files

**Q.no 33. Absolute loader loads object code in memory from**

**A : Fixed location given by programmer**

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 34. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

**C : is in the process's logical address space**

D : is the system's physical address space

**Q.no 35. Each entry in a translation lookaside buffer (TL) consists of**

**A : key**

B : value

C : bit value

D : constant

**Q.no 36. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

**B : SJF – Shortest Job First**

C : RR – Round Robin

D : priority

**Q.no 37. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

**B : Preemptive scheduling**

C : All of the mentioned

D : processes are classified into groups

**Q.no 38. Operating system is**

**A : system software**

B : application software

C : both 1 & 2

D : not a software

**Q.no 39. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

**A : Bit table**

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 40. Shell is the exclusive feature of**

A : Dos

**B : Unix**

C : System software

D : Application software

**Q.no 41. How Sequential access method works on random access devices.**

**A : works well**

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 42. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 43. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 44. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 45. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 46. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 47. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

**D : yet another compiler compiler**

**Q.no 48. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

**C : the page is in memory**

D : the page is not in memory

**Q.no 49. Using a pager**

A : increases the swap time

B : decreases the swap time

**C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 50. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

**B : Dynamic linking library**

C : load time linking library

D : Both 1 & 2

**Q.no 51. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

**C : Linked list**

D : Double linked list

**Q.no 52. Which method on free space management, each block is assigned in a reserved portion of the disk.**

- A : Bit tables
- B : Chained Free Portions
- C : Indexing
- D : Free Block List**

**Q.no 53. An assembler is**

- A : programming language dependent
- B : syntax dependant
- C : machine dependant**
- D : data dependant

**Q.no 54. Which of the following software tool is parser generator ?**

- A : Lex
- B : Yacc**
- C : Ibburg
- D : both 1 & 3

**Q.no 55. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

- A : the instruction set architecture**
- B : page size
- C : physical memory size
- D : number of processes in memory

**Q.no 56. An interpreter is**

- A : A program that places programs into memory and prepares them for execution
- B : A program that appears to execute a source program as if it were machine language**

C : A program that automate the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

**Q.no 57. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 58. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 59. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 60. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

30

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**Answer for Question No 1. is c**

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**Answer for Question No 2. is c**

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**Answer for Question No 3. is b**

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**Answer for Question No 4. is a**

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**Answer for Question No 5. is a**

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**Answer for Question No 6. is a**

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**Answer for Question No 7. is b**

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**Answer for Question No 8. is c**

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**Answer for Question No 9. is d**

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**Answer for Question No 10. is a**

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**Answer for Question No 11. is a**

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**Answer for Question No 12. is a**

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**Answer for Question No 13. is c**

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**Answer for Question No 14. is c**

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**Answer for Question No 15. is d**

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**Answer for Question No 16. is d**

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**Answer for Question No 17. is b**

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**Answer for Question No 18. is c**

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**Answer for Question No 19. is a**

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**Answer for Question No 20. is c**

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**Answer for Question No 21. is d**

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**Answer for Question No 22. is a**

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**Answer for Question No 23. is a**

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**Answer for Question No 24. is a**

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**Answer for Question No 25. is b**

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**Answer for Question No 26. is c**

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**Answer for Question No 27. is c**

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**Answer for Question No 28. is b**

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**Answer for Question No 29. is b**

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**Answer for Question No 30. is b**

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**Answer for Question No 31. is c**

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**Answer for Question No 32. is b**

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**Answer for Question No 33. is a**

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**Answer for Question No 34. is c**

**Answer for Question No 35. is a**

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**Answer for Question No 36. is b**

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**Answer for Question No 37. is b**

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**Answer for Question No 38. is a**

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**Answer for Question No 39. is a**

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**Answer for Question No 40. is b**

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**Answer for Question No 41. is a**

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**Answer for Question No 42. is a**

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**Answer for Question No 43. is a**

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**Answer for Question No 44. is a**

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**Answer for Question No 45. is b**

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**Answer for Question No 46. is b**

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**Answer for Question No 47. is d**

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**Answer for Question No 48. is c**

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**Answer for Question No 49. is c**

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**Answer for Question No 50. is b**

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**Answer for Question No 51. is c**

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**Answer for Question No 52. is d**

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**Answer for Question No 53. is c**

**Answer for Question No 54. is b**

**Answer for Question No 55. is a**

**Answer for Question No 56. is b**

**Answer for Question No 57. is a**

**Answer for Question No 58. is b**

**Answer for Question No 59. is a**

**Answer for Question No 60. is d**

Total number of questions : 60

## PWD10886\_SYSTEMS PROGRAMMING AND OPERATING SYSTEM

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
- 2) Attempt any 50 questions out of 60.
- 3) Use of calculator is allowed.
- 4) Each question carries 1 Mark.
- 5) Specially abled students are allowed 20 minutes extra for examination.
- 6) Do not use pencils to darken answer.
- 7) Use only black/blue ball point pen to darken the appropriate circle.
- 8) No change will be allowed once the answer is marked on OMR Sheet.
- 9) Rough work shall not be done on OMR sheet or on question paper.
- 10) Darken ONLY ONE CIRCLE for each answer.

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**Q.no 1. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B** : ready queue

C : cpu

D : secondary storage

**Q.no 2. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

**✓** B : currently running process

C : parent process

D : init process

**Q.no 3. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 4. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

D : locality of reference is applicable to the process

**Q.no 5. which of the following is not a type of translator?**

A : assembler

B : compiler

C : loader

D : interpreter

**Q.no 6. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 7. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 8. In priority scheduling algorithm**

- A : CPU is allocated to the process with highest priority
- B : CPU is allocated to the process with lowest priority
- C : Equal priority processes can not be scheduled
- D : Equal priority processes can not be scheduled parallelly

**Q.no 9. Task of the lexical analysis phase is**

- A : to parse the source program into basic elements or tokens of the language
- B : checks that given statement is syntactically correct or not
- C : removes comments and white spaces
- D : Both 1 & 3

**Q.no 10. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

- A : semantic analysis
- B : code generation
- C : syntax analysis
- D : code optimization

**Q.no 11. The purpose of the ORIGIN directive is,**

- A : To indicate the purpose of the code
- B : To indicate the starting of the computation code
- C : To indicate the starting position in memory, where the program block is to be stored
- D : To list the locations of all the registers used

**Q.no 12. The last statement of the source program should be**

- A : Stop
- B : Return
- C : OP

D : End

**Q.no 13. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 14. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 15. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 16. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 17. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 18. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 19. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 20. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 21. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

C : valid – invalid

D : access

**Q.no 22. A self relocating program in one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C : one itself perform the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 23. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 24. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : . Semantic analysis

D : Structure analysis

**Q.no 25. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 26. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 27. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 28. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

 C : generates an error

D : something else

**Q.no 29. Pass-1 of two pass assmbler is used for**

A : synthesizing code

 B : gathering information

C : processing macro

D : expanding macro

**Q.no 30. In which disk information is recorded magnetically on platters.**

 A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 31. What is Scheduling?**

 A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 32. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

~~D~~ : defining a macro

**Q.no 33. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

~~B~~ : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 34. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

~~C~~ : macro

D : none of the mentioned

**Q.no 35. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

~~C~~ : first come, first served

D : critical ratio

**Q.no 36. Which one is a lexer Generator**

A : YACC

B : BISON

~~C~~ : FLEX

D : Ibburg

**Q.no 37. Which of the following isn't a part of the file directory?**

A : Attributes

B : Protocol

C : Location

D : Ownership

**Q.no 38. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 39. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 40. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 41. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 42. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 43. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 44. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 45. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 46. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 47. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 48. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 49. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 50. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 51. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

### **Q.no 52. An imperative statement**

A : Reserves areas of memory and associates names with them

**B** : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

### **Q.no 53. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

**A** : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

### **Q.no 54. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

**A** : Identifier

B : Number

C : Keyword

D : operator

### **Q.no 55. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B** : A program that appears to execute a source program as if it were machine language

C : A program that automate the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

### **Q.no 56. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 57. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 58. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 59. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 60. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 1. syntax analyzer or parser takes the input from a \_\_\_\_\_**

- A : Lexical analyser
- B : Syntactic Analyser
- C : Semantic Analyser
- D : None of the mentioned

**Q.no 2. Virtual memory is**

- A : An extremely large main memory
- B : An extremely large secondary memory
- C : An illusion of extremely large main memory
- D : A type of memory used in super computers

**Q.no 3. The process wherein the processor constantly checks the status flags is called as**

- A : Polling
- B : Inspection
- C : Reviewing
- D : Echoing

**Q.no 4. Output file of Lex is \_\_\_\_\_ , if the input file is Myfile.**

- A : Myfile.e
- B : Myfile.yy.c
- C : Myfile.lex
- D : Myfile.obj

**Q.no 5. The interval from the time of submission of a process to the time of completion is termed as**

- A : waiting time
- B : turnaround time
- C : response time

D : throughput

**Q.no 6. The end of a macro can be represented by the directive**

A : END

B : ENDS

C : MEND

D : ENDD

**Q.no 7. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 8. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 9. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 10. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 11. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

**B : LIFO (Last in First out)**

C : FILO rule (First in last out)

D : None of the above

**Q.no 12. In memory-mapped I/O**

**A : The I/O devices and the memory share the same address space**

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 13. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 14. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

**B : virtual memory**

C : auxiliary memory

D : secondary memory

**Q.no 15. Expansion time variables are used**

A : Before expansion of macro calls

**B : only during expansion of macro calls**

C : After expansion of macro calls

D : Any one of the above

**Q.no 16. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 17. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

D : Least Recently used

**Q.no 18. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

**Q.no 19. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 20. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

**Q.no 21. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 22. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 23. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 24. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 25. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 26. Each entry in a translation lookaside buffer (TL consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 27. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appears to execute a source program as if it were machine language

**Q.no 28. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 29. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 30. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 31. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 32. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 33. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 34. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

D : protection bit with each page

**Q.no 35. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 36. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 37. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 38. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 39. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 40. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

~~D~~ : Both A and B

**Q.no 41. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

~~C~~ : the page is in memory

D : the page is not in memory

**Q.no 42. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

~~A~~ : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 43. Which of the following software tool is parser generator ?**

A : Lex

~~B~~ : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 44. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

~~B~~ : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 45. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 46. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 47. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 48. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 49. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 50. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 51.** s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 52.** In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 53.** Forward reference table(FRT) is arranged like -

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 54.** How Sequential access method works on random access devices.

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 55. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 56. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 57. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 58. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 59. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 60. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 1. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 2. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

**C : The devices have to deal with fewer address lines**

D : No advantage as such

**Q.no 3. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

**C : A stream of tokens**

D : A parse tree

**Q.no 4. In priority scheduling algorithm**

**A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 5. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 6. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 7. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 8. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 9. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 10. Effective access time is directly proportional to**

A : memory access time

**B : page-fault rate**

C : hit ratio

D : none of the mentioned

**Q.no 11. which algo. Is nonpreemptive**

A : SJF-P

**B : FCFS**

C : RR

D : Priority

**Q.no 12. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 13. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 14. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 15. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 16. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

C : RU policy (Recurrently use

D : Optimal page replacement policy

**Q.no 17. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 18. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 19. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 20. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 21. The offset 'd' of the logical address must be**

A : greater than segment limit

B : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 22. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

B : Shortest service time first

C : Priority by process

D : Random scheduling

**Q.no 23. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 24. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 25. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

 D : Circular SCAN

**Q.no 26. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

 D : defining a macro

**Q.no 27. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

 C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 28. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

 B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 29. Format of macro call is**

A : <macro name> [<actual parameter spec>, ...]

B : <macro name> [<formal parameter spec>, ...]

C : <macro name>

D : <call macro>

**Q.no 30. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 31. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 32. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 33. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 34. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 35. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

B : Preemptive scheduling

C : Shortest job first

D : First come First served

**Q.no 36. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 37. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

B : SJF – Shortest Job First

C : RR – Round Robin

D : priority

**Q.no 38. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 39. Which of the following isn't a part of the file directory?**

A : Attributes

**B : Protocol**

C : Location

D : Ownership

**Q.no 40. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

**D : context free grammar**

**Q.no 41. The linker is**

A : is same as the loader

**B : is required to create a load module**

C : is always used before programs are executed

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**Q.no 42. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

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**C : the page is in memory**

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**Q.no 43. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

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**Q.no 47. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

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A : A program that places programs into memory and prepares them for execution

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A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 50.** What are the two methods of the LRU page replacement policy that can be implemented in hardware?

A : Counters

B : RAM & Registers

C : Stack & Counters

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A : compiler

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**Q.no 60. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 1. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 2. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

B : currently running process

C : parent process

D : init process

**Q.no 3. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 4. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

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A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 7. Which of the following is used for grouping of characters into tokens?**

- A : Parser
- B : Code optimization
- C : Code generator
- D : Lexical analyser

**Q.no 8. A set of techniques that allow to execute a program which is not entirely in memory is called**

- A : demand paging
- B : virtual memory
- C : auxiliary memory
- D : secondary memory

**Q.no 9. Which technique is used for temporarily removing inactive programs from the memory of computer system**

- A : Swapping
- B : Spooling
- C : Semaphore
- D : Scheduler

**Q.no 10. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

- A : Myfile.e
- B : Myfile.yy.c
- C : Myfile.lex
- D : Myfile.obj

**Q.no 11. The pager concerns with the**

- A : entire thread
- B : first page of a process
- C : individual page of a process

D : entire process

**Q.no 12. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 13. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 14. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

**D : locality of reference is applicable to the process**

**Q.no 15. In assembler design memory allocation to symbols is done in**

**A : pass 1 of assembler**

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 16. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 17. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 18. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

D : Both 1 & 3

**Q.no 19. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 20. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 21. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 22. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

C : MACRO

D : none of the mentioned

**Q.no 23. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 24. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 25. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 26. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 27. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 28. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

C : valid – invalid

D : access

**Q.no 29. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 30. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 31. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 32. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 33. Each entry in a translation lookaside buffer (TL consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 34. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

B : Indexed allocation

C : Contiguous allocation

D : Variable allocation

**Q.no 35. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 36. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 37. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 38. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 39. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 40. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 41. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 42. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 43. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 44. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 45. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 46. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

~~D : Free Block List~~

**Q.no 47. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

~~C : PL domain and execution domain~~

D : PL domain only

**Q.no 48. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

~~B : Chained Free Portions~~

C : Indexing

D : Free Block List

**Q.no 49. In a two pass assembler the object code generation is done during the ?**

~~A : Second pass~~

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 50. How Sequential access method works on random access devices.**

~~A : works well~~

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 51. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 52. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 53. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 54. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 55. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 56. Libraries that are loaded and unloaded as and when needed is called as**

- A : Static Linking library
- B : Dynamic linking library**
- C : load time linking library
- D : Both 1 & 2

**Q.no 57. Using a pager**

- A : increases the swap time
- B : decreases the swap time
- C : decreases the swap time & amount of physical memory needed**
- D : increases the amount of physical memory needed

**Q.no 58. Which of the following software tool is parser generator ?**

- A : Lex
- B : Yacc**
- C : Ibburg
- D : both 1 & 3

**Q.no 59. Static memory allocation is typically performed during**

- A : compilation**
- B : execution
- C : loading
- D : linking

**Q.no 60. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

- A : the instruction set architecture**
- B : page size
- C : physical memory size
- D : number of processes in memory

**Q.no 1. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 2. Expansion time variables are used**

A : Before expansion of macro calls

**B : only during expansion of macro calls**

C : After expansion of macro calls

D : Any one of the above

**Q.no 3. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

**C : The devices have to deal with fewer address lines**

D : No advantage as such

**Q.no 4. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

**D : DMA**

**Q.no 5. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

**C : An illusion of extremely large main memory**

D : A type of memory used in super computers

**Q.no 6. In priority scheduling algorithm**

- A : CPU is allocated to the process with highest priority
- B : CPU is allocated to the process with lowest priority
- C : Equal priority processes can not be scheduled
- D : Equal priority processes can not be scheduled parallelly

**Q.no 7. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

- A : Directory Management
- B : Logical I/O
- C : Device I/O
- D : Scheduling and control

**Q.no 8. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

- A : Physical organization
- B : File system
- C : Directory management
- D : Scheduling and control

**Q.no 9. A process is moved to wait queue when I/O request is made with**

- A : non-blocking I/O
- B : blocking I/O
- C : asynchronous I/O
- D : synchronous I/O

**Q.no 10. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

- A : job queue
- B : ready queue
- C : execution queue

D : process queue

**Q.no 11. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

**Q.no 12. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 13. Which of the following type of software should be used if you need to create,edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 14. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 15. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 16. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 17. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

B : LIFO (Last in First out)

C : FILO rule (First in last out)

D : None of the above

**Q.no 18. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

D : Operating System

**Q.no 19. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 20. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 21. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 22. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

**D : protection bit with each page**

**Q.no 23. Assembler processes**

A : any language

**B : assembly language**

C : c language

D : high level language

**Q.no 24. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 25. Input of Lex is ?**

**A : set to regular expression**

B : statement

C : Numeric data

D : ASCII data

**Q.no 26. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

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**Q.no 27. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

~~B : Preemptive scheduling~~

C : All of the mentioned

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**Q.no 28. What is Scheduling?**

~~A : allowing a job to use the processor~~

B : making proper use of processor

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**Q.no 29. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

~~C : knowledge of both system and application programming~~

D : knowledge of hardware

**Q.no 30. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

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**Q.no 31. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

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A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

D : Both A and B

**Q.no 35. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 36. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 37. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

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B : page size

C : physical memory size

D : number of processes in memory

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A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

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B : SJF

C : RR

D : priority

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B : API

C : library

D : shell

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B : variables from code

C : instruction

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**Q.no 5. On a movable head system, the time it takes to position the head at the track is known as**

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A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 8. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 9. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 10. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 11. Which technique is used for temporarily removing inactive programs from the memory of computer system**

A : Swapping

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 12. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 13. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 14. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 15. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

D : Least Recently used

**Q.no 16. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 17. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

C : Single BUS structure

D : Node to Node BUS structure

**Q.no 18. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 19. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 20. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 21. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 22. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 23. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 24. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 25. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 26. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 27. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 28. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 29. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 30. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 31. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 32. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 33. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 34. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 35. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 36. Which of the following isn't a part of the file directory?**

A : Attributes

B : Protocol

C : Location

D : Ownership

**Q.no 37. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 38. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 39. Format of macro call is**

A : <macro name> [<actual parameter spec>, ...]

B : <macro name> [<formal parameter spec>, ...]

C : <macro name>

D : <call macro>

**Q.no 40. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 41. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 42. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 43. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 44. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 45. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 46. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 47. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 48. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 49. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 50. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 51. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 52. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 53. Using a pager**

A : increases the swap time

B : decreases the swap time

**C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 54. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

**A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 55. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 56. How Sequential access method works on random access devices.**

**A : works well**

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 57. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 58. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 59. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 60. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 1. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 2. Which of the following type of software should be used if you need to create,edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 3. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

B : currently running process

C : parent process

D : init process

**Q.no 4. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

C : A stream of tokens

D : A parse tree

**Q.no 5. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 6. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

B : Logical I/O

C : Device I/O

D : Scheduling and control

**Q.no 7. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

C : An illusion of extremely large main memory

D : A type of memory used in super computers

**Q.no 8. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 9. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 10. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 11. Task of the lexical analysis phase is**

- A : to parse the source program into basic elements or tokens of the language
- B : checks that given statement is syntactically correct or not
- C : removes comments and white spaces
- ~~D : Both 1 & 3~~

**Q.no 12. which algo. Is nonpreemptive**

- ~~A : SJF-P~~
- ~~B : FCFS~~
- C : RR
- D : Priority

**Q.no 13. Which algorithm is defined in Time quantum?**

- A : shortest job scheduling algorithm
- ~~B : round robin scheduling algorithm~~
- C : priority scheduling algorithm
- D : multilevel queue scheduling algorithm

**Q.no 14. The memory allocation scheme subject to “external” fragmentation is**

- ~~A : segmentation~~
- B : swapping
- C : pure demand paging
- D : multiple fixed contiguous partitions

**Q.no 15. A model statement contains call for another macro is called as**

- A : referential macro call
- ~~B : nested macro call~~
- C : inbuilt macro call
- D : inherited macro call

**Q.no 16. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

- A : Exceptions
- B : Signal handling
- C: Interrupts**
- D : DMA

**Q.no 17. The end of a macro can be represented by the directive**

- A : END
- B : ENDS
- C: MEND**
- D : ENDD

**Q.no 18. which of the following is not a type of translator?**

- A : assembler
- B : compiler
- C : loader**
- D : interpreter

**Q.no 19. The function of OS**

- A : Resource allocator
- B : control program
- C : create user friendly env.
- D: All**

**Q.no 20. The advantage of I/O mapped devices to memory mapped is**

- A : The former offers faster transfer of data
- B : The devices connected using I/O mapping have a bigger buffer space
- C : The devices have to deal with fewer address lines**
- D : No advantage as such

**Q.no 21. Which of the following table is used to identify macro calls?**

- A : Macro Name table
- B : Actual Parameter Table
- C : Parameter Default table
- D : Expansion time variable Table

**Q.no 22. What is FIFO algorithm?**

- A : first executes the job that came in last in the queue
- B : first executes the job that came in first in the queue
- C : first executes the job that needs minimal processor
- D : first executes the job that has maximum processor needs

**Q.no 23. Pass-1 of two pass assembler is used for**

- A : synthesizing code
- B : gathering information
- C : processing macro
- D : expanding macro

**Q.no 24. Input of Lex is ?**

- A : set to regular expression
- B : statement
- C : Numeric data
- D : ASCII data

**Q.no 25. The time taken for the desired sector to rotate to the disk head is called**

- A : positioning time
- B : random access time
- C : seek time
- D : rotational latency

**Q.no 26. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

**B : Shortest Job First**

C : Earliest Deadline First

D : Longest Job First

**Q.no 27. Machine independent phase of the compiler is**

**A : syntax analysis and Lexical analysis**

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 28. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

**C : bridge gap between programmer and system**

D : bridge gap between different systems

**Q.no 29. Process are classified into different groups in**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 30. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 31. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

- A : assigning ready processes to CPU
- B : assigning ready processes to waiting queue
- C : assigning running processes to blocked queue
- D : assign prcess from wating to ready queue

**Q.no 32. Which of the following is not a Lexemes?**

- A : Identifiers
- B : Constants
- C : Keywords
- D : context free grammar

**Q.no 33. The beginning of the macro definition can be represented as**

- A : START
- B : BEGIN
- C : MACRO
- D : none of the mentioned

**Q.no 34. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

- A : Last in first out
- B : Shortest service time first
- C : Priority by process
- D : Random scheduling

**Q.no 35. In segmentation, each address is specified by**

- A: a segment number & offset
- B : an offset & value
- C : a value & segment number

D : a key & value

**Q.no 36. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

 D : Both 1 & 2

**Q.no 37. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

 A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 38. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

 A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 39. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

 D : Demand paging

**Q.no 40. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

B : Indexed allocation

C : Contiguous allocation

D : Variable allocation

**Q.no 41. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 42. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 43. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 44. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 45.** These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.

- A : Indexed files
- B : Direct files**
- C : Sequential files
- D : Indexed Sequential files

**Q.no 46.** The essential content(s) in each entry of a page table is/are

- A : Virtual page number
- B : Page frame number**
- C : Both virtual page number and page frame number
- D : Access right information

**Q.no 47.** An edge from process Pi to Pj in a wait for graph indicates that

- A : Pi is waiting for Pj to release a resource that Pi needs**
- B : Pj is waiting for Pi to release a resource that Pj needs
- C : Pi is waiting for Pj to leave the system
- D : Pj is waiting for Pi to leave the system

**Q.no 48.** If the wait for graph contains a cycle

- A : then a deadlock does not exist
- B : then a deadlock exists**
- C : then the system is in a safe state
- D : either deadlock exists or system is in a safe state

**Q.no 49.** An assembler is

- A : programming language dependent
- B : syntax dependant
- C : machine dependant**

D : data dependant

**Q.no 50. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 51. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 52. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 53. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 54. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 55. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 56. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 57. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 58. YACC stands for**

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**Q.no 59. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

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C : Indexing

D : Free Block List

**Q.no 60. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 1. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

C : syntax analysis

D : code optimization

**Q.no 2. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 3. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 4. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 5. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

C : Single BUS structure

D : Node to Node BUS structure

**Q.no 6. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 7. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 8. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 9. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

C : RU policy (Recurrently use

D : Optimal page replacement policy

**Q.no 10. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

B : File system

C : Directory management

D : Scheduling and control

**Q.no 11. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

B : ready queue

C : cpu

D : secondary storage

**Q.no 12. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 13. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 14. Page fault frequency in an operating system is reduced when the**

- A : processes tend to be I/O-bound
- B : size of pages is reduced
- C : processes tend to be CPU-bound
- D : locality of reference is applicable to the process

**Q.no 15. Effective access time is directly proportional to**

- A : memory access time
- B : page-fault rate
- C : hit ratio
- D : none of the mentioned

**Q.no 16. A macro is**

- A : a small program inside a program
- B : set of special instructions
- C : a unit of specification for program generation through expansion
- D : same as function

**Q.no 17. Nested Macro calls are expanded using the**

- A : FIFO rule (First in first out)
- B : LIFO (Last in First out)
- C : FILO rule (First in last out)
- D : None of the above

**Q.no 18. Examples of system program includes**

- A : Ticket booking system
- B : Banking software
- C : Online shopping program
- D : Operating System

**Q.no 19. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 20. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 21. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

B : Preemptive scheduling

C : All of the mentioned

D : processes are classified into groups

**Q.no 22. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 23. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 24. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

~~B~~ : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 25. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

~~C~~ : valid – invalid

D : access

**Q.no 26. The offset ‘d’ of the logical address must be**

A : greater than segment limit

~~B~~ : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 27. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

~~C~~ : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 28. In which disk information is recorded magnetically on platters.**

~~A~~ : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 29. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 30. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 31. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 32. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 33. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 34. START pseudo code is used for**

- A : setting initial value of LC and specifies start of program
- B : Specifying start of a Register Table
- C : specifies start of literal table
- D : specifies start of symbol table

**Q.no 35. Which is the most optimal scheduling algorithm?**

- A : FCFS – First come First served
- B : SJF – Shortest Job First
- C : RR – Round Robin
- D : priority

**Q.no 36. The time taken to move the disk arm to the desired cylinder is called the**

- A : positioning time
- B : random access time
- C : seek time
- D : rotational latency

**Q.no 37. The process of assigning a label or macroname to the string is called**

- A : initialising macro
- B : initialising string macro
- C : defining a string macro
- D : defining a macro

**Q.no 38. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

- A : Parser
- B : Optimizer
- C : Scanner

D : Loader

**Q.no 39. in which Swap space exists**

A : cpu

B : primary memory

**C : secondary memory**

D : none of the mentioned

**Q.no 40. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 41. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 42. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

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**Q.no 43. Segment replacement algorithms are more complex than page replacement algorithms because**

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C : load time linking library

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A : Bit tables

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**Q.no 1. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 2. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 3. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 4. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 5. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 6. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 7. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

#### **Q.no 8. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

#### **Q.no 9. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

#### **Q.no 10. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

#### **Q.no 11. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

#### **Q.no 12. In priority scheduling algorithm**

A : CPU is allocated to the process with highest priority

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 13. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

**Q.no 14. Which of the following is used for grouping of characters into tokens?**

A : Parser

B : Code optimization

C : Code generator

D : Lexical analyser

**Q.no 15. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 16. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 17. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 18. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 19. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 20. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 21. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 22. Loader is a program that**

- A : places programs into memory and prepares them for execution
- B : automates the translation of assembly language into machine language
- C : accepts a program written in a high level language and produces an object program
- D : appears to execute a source program as if it were machine language

**Q.no 23. Which one of the following cannot be scheduled by the kernel?**

- A : kernel level thread
- B : user level thread
- C : process
- D : priority Process

**Q.no 24. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

- A : Leftmost derivation
- B : Leftmost derivation traced out in reverse
- C : Rightmost derivation
- D : ightmost derivation traced out in reverse

**Q.no 25. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

- A : overwrites the word
- B : overwrites the functionality
- C : generates an error
- D : something else

**Q.no 26. Absolute loader loads object code in memory from**

- A : Fixed location given by programmer
- B : Any location which is free
- C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 27. Format of macro call is**

A : <macro name> [<actual parameter spec>, ...]

B : <macro name> [<formal parameter spec>, ...]

C : <macro name>

D : <call macro>

**Q.no 28. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

**D : protection bit with each page**

**Q.no 29. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 30. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

**D : Both A and B**

**Q.no 31. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 32. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 33. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 34. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 35. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 36. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 37. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 38. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

**D : Circular SCAN**

**Q.no 39. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

**A : Simultaneous access**

B : Compaction

C : External Fragmentation

D : Division

**Q.no 40. Pass-1 of two pass assmbler is used for**

A : synthesizing code

**B : gathering information**

C : processing macro

D : expanding macro

**Q.no 41. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

~~D : yet another compiler compiler~~

**Q.no 42.** Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.

A : minimum

B : average

~~C : maximum~~

D : approximate

**Q.no 43. The linker is**

A : is same as the loader

~~B : is required to create a load module~~

C : is always used before programs are executed

D : translator

**Q.no 44. The translator which translates high level language to machine code is**

~~A : compiler~~

B : assembler

C : loader

D : interpreter

**Q.no 45. A grammar that produces more than one parse tree for some sentence is called**

~~A : Ambiguous~~

B : Unambiguous

C : Regular

D : None of these

**Q.no 46. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 47. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 48. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 49. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 50. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 51. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 52. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 53. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 54. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 55. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 56. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 57. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 58. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 59. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 60. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 1. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

D : Loader

**Q.no 2. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

B : Logical I/O

C : Device I/O

D : Scheduling and control

**Q.no 3. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 4. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 5. Which of the following type of software should be used if you need to create, edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 6. Output file of Lex is \_\_\_\_\_ , if the input file is Myfile.**

A : Myfile.e

~~B : Myfile.yy.c~~

C : Myfile.lex

D : Myfile.obj

**Q.no 7. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

~~C : currently running process~~

C : parent process

D : init process

**Q.no 8. Which statement declare the name of macro.**

~~A : macro prototype~~

B : macro definition

C : macro identification

D : macro call

**Q.no 9. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

~~C : The devices have to deal with fewer address lines~~

D : No advantage as such

**Q.no 10. Expansion time variables are used**

A : Before expansion of macro calls

B : only during expansion of macro calls

C : After expansion of macro calls

D : Any one of the above

**Q.no 11. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D . End

**Q.no 12. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 13. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 14. On a movable head system, the time it takes to position the head at the track is known as**

A : seek time

B : rotational delay

C : access time

D : Transfer time

**Q.no 15. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 16. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

**B : round robin scheduling algorithm**

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 17. The process wherein the processor constantly checks the status flags is called as**

**A : Polling**

B : Inspection

C : Reviewing

D : Echoing

**Q.no 18. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 19. syntax analyzer or parser takes the input from a \_\_\_\_\_**

**A : Lexical analyser**

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 20. The output of a lexical analyzer is**

- A : Machine code
- B : Intermediate code
- C : A stream of tokens
- D : A parse tree

**Q.no 21. Input of Lex is ?**

- A : set to regular expression
- B : statement
- C : Numeric data
- D : ASCII data

**Q.no 22. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

- A : procedure
- B : subroutine
- C : macro
- D : none of the mentioned

**Q.no 23. With round robin scheduling algorithm in a time shared system**

- A : using very large time slices converts it into First come First served scheduling algorithm
- B : using very small time slices converts it into First come First served scheduling algorithm
- C : using extremely small time slices increases performance
- D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 24. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

- A : it reduces the memory access time to read or write a memory location
- B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 25. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 26. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 27. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 28. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 29. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

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**Q.no 30. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 31. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 32. Each entry in a translation lookaside buffer (TL) consists of**

A : key

B : value

C : bit value

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C : Parameter Default table

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**Q.no 35. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

**C : MACRO**

D : none of the mentioned

**Q.no 36. which of these is not a pseudocode/assembler directive**

A : USING

**B : BALR**

C : DROP

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**A : system software**

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C : Keyword

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Seat No -

Total number of questions : 60

## PWD10892\_SYSTEMS PROGRAMMING

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
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  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. In a two pass assembler the object code generation is done during the**

A : Second pass

B : First pass

C : Zeroeth pass

D : In all passes

**Q.no 2. Each execution of procedure is called as**

A : activation

B : execution

C : symbol

D : environment

**Q.no 3. Which order of expansion nested macro calls follows?**

A : First In first Out

B : First In Last Out

C : Last In First Out

D : Last In Last Out

**Q.no 4. To derive a string using the production rules of a given grammar, we use:**

A : Position where next reduce or shift operation will occur

B : The next step has use of Non-terminal for reduction

C : Used for reduction in a coming-up step along with a position in the sentential form where the next shift or reduce operation will occur

D : Used in the next step for reduction along with a position in the sentential form where the right hand side of the production may be found

**Q.no 5. The assembler which performs macro expansion as well as assembly is called as**

A : Macro processor

B : Macro preprocessor

C : Macro

D : Macro assembler

**Q.no 6. What is the output of a lexical analyzer?**

A : Machine Code

B : Intermediate Code

C : Stream of Token

D : Parse Tree

**Q.no 7. A compiler is**

A : A program that place program into memory and prepares them for execution

B : A program that automates the translation of assembly language into machine language

C : program that accepts program written in high level language and produces an object program

D : A program that appears to execute a source program as if it were machine language

**Q.no 8. Three address code generated , Arrays are**

- A : One Dimensional
- B : Not Supported
- C : Multi Dimensional
- D : Supported using pointer

**Q.no 9. Which one of the following is a top-down parser?**

- A : Ambiguous
- B : Unambiguous
- C : Regular
- D : Irregular

**Q.no 10. Type checking is normally done during ?**

- A : Lexical analysis
- B : Syntax analysis
- C : Syntax directed translation
- D : Code generation

**Q.no 11. Which of these is not a part of Synthesis phase**

- A : Obtain machine code corresponding to the mnemonic from the Mnemonics table
- B : Obtain address of a memory operand from the symbol table
- C : Perform LC processing
- D : Synthesize a machine instruction or the machine form of a constant

**Q.no 12. Which of the following class of statement usually produces no executable code when compiled?**

- A : Declarative statement
- B : Input output statement
- C : Loops

D : Structural statement

**Q.no 13. Which table is designed to hold names of all macros defined in a program?**

A : Macro Name Table

B : Macro Definition Table

C : Macro Parameter Name Table

D : Actual Parameter table

**Q.no 14. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 15. the main task of the lexical analyzer is**

A : to read the input characters of the source program

B : group them into lexemes

C : produce as output a sequence of tokens for each lexeme in the source program

D : All of above

**Q.no 16. TII stands for**

A : Table of incomplete instructions

B : Table of information instructions

C : Translation of instructions information

D : Translation of information instruction

**Q.no 17. Which amongst LR Parsers is the most powerful.**

A : Top down Parser

B : Bottom Up parser

C : May be top down or bottom up

D : Both top down and bottom up

**Q.no 18. What a macro call leads to?**

A : Macro Expansion

B : Macro Execution

C : Macro Linking

D : Macro Change

**Q.no 19. Which of the following is advanced macro a facility?**

A : LTORG

B : ORIGIN

C : EQU

D : Expansion Time sequencing symbol

**Q.no 20. A graph that shows basic blocks and their successor relationship is called as**

A : Flow graph

B : control graph

C : Hamiltonion graph

D : DAG

**Q.no 21. Attribute which indicates value of the expression for a non terminal in semantic action is known as**

A : code

B : place

C : mode

D : record

**Q.no 22. YACC is a computer program for \_\_\_\_\_ operation system.**

A : Windows

B : DOS

C : Unix

D : openSUSE

**Q.no 23. The action of parsing the source program into proper syntactic classes is called**

A : LALR parser

B : LL parser

C : Recursive Accent parser

D : LR Parser

**Q.no 24. The assembler directive EQU, when used in the instruction: Sum EQU 200 does**

A : Finds the first occurrence of Sum and assigns value 200 to it

B : Replaces every occurrence of Sum with 200

C : Re-assigns the address of Sum by adding 200 to its original address

D : Assigns 200 bytes of memory starting the location of Sum

**Q.no 25. The lexical analyzer reads the stream of characters making up the source program and groups the characters into meaningful sequences called -----**

A : lexemes

B : Pattern

C : Tokens

D : Error

**Q.no 26. Attribute which indicates type of the result for a non terminal in semantic action is known as**

A : code

B : place

C : mode

D : record

**Q.no 27. Attribute which indicates three address code generated for a non terminal in semantic**

**action is known as**

A : code

B : place

C : mode

D : record

**Q.no 28. Induction variables and Reduction in strengths is part of which phase**

A : Intermediate code generation

B : Storage allocation

C : Code optimization

D : Parser

**Q.no 29. Which of the following derivations does a top-down parser use while parsing an input string?**

A : Syntax Analysis

B : Lexical Analysis

C : Interpretation analysis

D : General Syntax Analysis

**Q.no 30. Which of the following is Macro Preprocessor Statement?**

A : ORIGIN

B : AIF

C : AGO

D : SET

**Q.no 31. Which is NOT a implementation For TAC**

A : Quadruple

B : Postfix Notation

C : Triple

D : Indirect Triple

**Q.no 32. Computer program can be optimized by**

A : Type Checking

B : Common Subprograms

C : Dead Code elimination

D : Copy intermediate loop

**Q.no 33. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 34. Which of the following is used for grouping of characters into tokens**

A : Yet Another Compile Compiler

B : Yet Another Compile Compiler

C : Yet Another Compiler Compiler

D : Yes Another Compiler Compiler

**Q.no 35. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 36. A ----- is a sequence of characters in the source program that matches the pattern for a token and is identified by the lexical analyzer as an instance of that token**

A : lexemes

B : Pattern

C : Tokens

D : Error

**Q.no 37. which of the following is a example of relocating loaders?**

A : Absolute loader

B : Compile and Go loader

C : Binary Symbolic Subroutine

D : Assemble and Go loader

**Q.no 38. What a subroutine name in a call leads to?**

A : Execution

B : Expansion

C : Error

D : Loop

**Q.no 39. Allocation strategy which allocates and deallocates storage as needed at runtime from data area is known as**

A : Static Allocation

B : Stack Allocation

C : Dynamic Allocation

D : Heap Allocation

**Q.no 40. The input string is in I/p buffer followed by the right end marker -----**

A : \$

B : \*

C : %

D : #

**Q.no 41. printf("Total = %d\n", score); In this statement "Total = %d\n" is lexem matching with token -----**

A : ID

B : Keyword

C : Literal

D : Pattern

**Q.no 42. The \_\_\_\_\_ table is created by YACC.**

A : Semantic analysis

B : Syntax analysis

C : Code optimization

D : Code generation

**Q.no 43. Which of the following is true for a predictive parser?**

A : Analyzing

B : Recognizing

C : Tokenizing

D : Parsing

**Q.no 44. if attributes of child node depends on its parent node then it is called as .....**

A : TAC

B : synthesised

C : inherited

D : directed

**Q.no 45. In direct conversion of RE to DFA, If Node is . (Cat node) c1.c2 then Firstpos(node) is**

A : if nullable(c1) then firstpos(c1) Union firstpos(c2)  
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D : Not Calculated

**Q.no 46. Which of the following statements is false?**

A : LALR parsing

B : LL parsing

C : GLR parsing

D : LR Parsing

**Q.no 47. Consider the basic block given below**

$a = b + c$

$c = a + d$

$d = b + c$

$e = d - b$

$a = e + b$

**The minimum number of nodes and edges present in the DAG representation of the above basic block respectively are**

A : 6 and 6

B : 8 and 10

C : 4 and 4

D : 8 and 8

**Q.no 48. Which of the following system program forgoes the production of object code to generate absolute machine code and load it into the physical main storage location from which it will be executed immediately upon completion of the assembly?**

A : compiler

B : macroprocessor

C : two pass assembler

D : load-and-go assembler

**Q.no 49. Postfix notation for the given expression is**

$x = c ? a : b$

A :  $xcab?:=$

B :  $.xcbab: ? =$

C :  $xcab=?:$

D :  $xc=ab:?$

**Q.no 50. In which loading scheme programmer must specify to the assembler the address in core where the program is to be loaded?**

- A : Dynamic Linking
- B : Dynamic loading
- C : Binary Symbolic Subroutine
- D : Absolute Loader

**Q.no 51. Which card contains the actual object code translated version of source program in direct linking loading scheme?**

- A : TXD(Text card)
- B : External Symbol Dictionary card
- C : Relocation and Linkage Directory card
- D : END card

**Q.no 52. To recognize the tokens in the input stream \_\_\_\_\_ and \_\_\_\_\_ are convenient ways of designing recognizers.**

- A : Transition Diagrams, Finite Automata
- B : Transition Diagram, NFA
- C : Transaction Diagram, Finite Automata
- D : Transaction diagram, NFA

**Q.no 53. The assembler stores the object code in \_\_\_\_\_**

- A : Main memory
- B : Cache
- C : Magnetic Disk
- D : RAM

**Q.no 54. Which of the following describes a handle (as applicable to LR-parsing) appropriately?**

- A : Parser
- B : code generator

C : Lexical Analyzer

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**Q.no 55. In direct conversion of RE to DFA, If Node is \* (star node) having one child c1 then lastpos(node) is**

A : lastpos(c1)

B : lastpos(previousnode)

C : firstpos(node)

D : lastpos(node)

**Q.no 56. The least number of temporary variables required to create a three-address code in static single assignment form for the expression**

$q + r/3 + s - t * 5 + u * v/w$  is

A : 4

B : 8

C : 7

D : 9

**Q.no 57. Which is not characteristic of Peephole optimization**

A : Redundant- instruction elimination

B : Flow of control optimization

C : Algebraic simplification

D : Not producing new code

**Q.no 58. In which mechanism loading and linking of external references are postponed until execution time?**

A : Direct Linking Loader

B : Dynamic loading

C : Absolute Loader

D : Dynamic Linking

**Q.no 59. In BSS what is used to solve the problem of relocation?**

A : Relocation bit

B : Allocation bit

C : Transfer vector

D : Program Length

**Q.no 60. What does the assembler psudo opcode EXTRN followed by list of symbol indicate?**

A : these symbols are defined in other programs but referenced in present program

B : these symbols are defined in present program but referenced in other programs

C : Global variable

D : Expansion time variables

**Q.no 1. \_\_\_\_\_ is a process of finding parse tree for a string of tokens**

A : SLR

B : CLR

C : LALR

D : LLR

**Q.no 2. Use of macro name in mnemonic field of an assembly statement leads to what?**

A : Macro Expansion

B : Macro Execution

C : Macro control transfer

D : Macro replacement

**Q.no 3. In a two-pass assembler, the task of the Pass II is to**

A : separate the symbol, mnemonic opcode and operand fields

B : build the symbol table.

C : construct intermediate code.

D : synthesize the target program

**Q.no 4. Functions of Lexical analyzer are ?**

A : Removing white space

B : Removing constants, identifiers and keywords

C : Removing comments

D : All of above

**Q.no 5. Peep-hole optimization is a form of**

A : data flow analysis

B : Constant folding

C : Local optimization

D : Loop Optimization

**Q.no 6. The graph that is used in code optimization is**

A : Flow graph

B : DAG

C : Control Graph

D : Multi graph

**Q.no 7. Translation of parse tree to intermediate form is called as**

A : Syntax Directed Translation

B : lecical analysis

C : syntax analysis

D : code geeration

**Q.no 8. Which of the following is not a type of assembler**

A : One pass

B : Two pass

C : Three pass

D : Load and go

**Q.no 9. A processor-**

A : is a sequence of instructions

B : is the device where information is stored

C : is a device that performs a sequence of operations specified by instructions in memory

D : is the device where programs are stored stored

**Q.no 10. Which of the following provides program generation facility through expansion?**

A : Assembler

B : Macros

C : Compiler

D : Loader

**Q.no 11. One of the purposes of using intermediate code in compilers is to**

A : make parsing and semantic analysis simpler

B : improve error recovery

C : improve the chances of reusing machine independent code optimizer in other compiler

D : improve register allocation

**Q.no 12. Machine independent optimization is related with**

A : recognition of basic syntactic construction through reductions

B : recognition of basic elements and creation of uniform symbols

C : creation of more optimal code

D : use of macro-processor to produce more optimal assembly code

**Q.no 13. Shift reduce parsers are \_\_\_\_\_**

A : Right most derivation

B : Rightmost derivation in reverse

C : Leftmost derivation

D : Leftmost derivation in reverse

**Q.no 14. In three address code , Arrays are**

A : not supported

B : one dimensional

C : Two dimensional

D : supported via pointers

**Q.no 15. What macro prototype statements declares?**

A : The name of macro

B : The parameters of macro

C : the name of macro and the names and kinds of its parameter

D : macro definition

**Q.no 16. Allocation strategy which lays out data objects at compile time is known as**

A : Static Allocation

B : Stack Allocation

C : Dynamic Allocation

D : Heap Allocation

**Q.no 17. The concept of grammar is much used in this part of the compiler**

A : lexical analysis

B : parser

C : code generation

D : code optimization

**Q.no 18. Given the following expression grammar:**

$E \rightarrow E * F \mid F+E \mid F$

$F \rightarrow F-F \mid id$

A : Leftmost derivation

B : Leftmost derivation in reverse

C : Rightmost derivation

D : Rightmost derivation in reverse

**Q.no 19. all information required for a single activation procedure is contained in**

- A : stack
- B : activation record
- C : tree
- D : environment

**Q.no 20. The nodes of Abstract Syntax Tree deals with which of the following entities**

- A : Syntactic
- B : Semantic
- C : Operators
- D : Operands

**Q.no 21. ----- phase designed to improve the intermediate code.**

- A : Code optimization
- B : Code Generation
- C : Intermediate code generator
- D : Syntax Analyzer

**Q.no 22. What is used to describe tokens and identifiers.**

- A : Parser
- B : Lexical Analyzer
- C : Regular Expression
- D : Regular Grammar

**Q.no 23. Intermediate code generation for a compiler is**

- A : Must
- B : Optional
- C : Depends on language
- D : Never

**Q.no 24. In which loading scheme assembler simply places the code into core and the loader consists of one instruction that transfers to the starting instruction of the newly assembled program?**

- A : Absolute loader
- B : Assemble and Go loader
- C : Binary Symbolic Subroutine
- D : Direct Linking Loader

**Q.no 25. Forward reference is**

- A : A reference to a label that is defined in the program before its use
- B : A reference to a label that is defined later in the program
- C : A reference to a label that is defined anywhere in the program
- D : A reference to a label that is defined in the another program

**Q.no 26. LALR in LALR parser stands for:**

- A : Recursive Descent parser
- B : no backtracking
- C : Recursive Descent parser and no backtracking
- D : Recursive Descent parser and backtracking

**Q.no 27. In compiler " Reduction in strength means "**

- A : Removing common subexpressions
- B : Removing Loop invariant computation
- C : Replacing run time computation by compile time computation
- D : replacing a costly set of Instruction by a relatively cheaper one

**Q.no 28. The purpose of the ORIGIN directive is \_\_\_\_\_**

- A : To indicate the starting of the computation code
- B : To indicate the starting position in memory, where the program block is to be stored
- C : To indicate the purpose of the code

D : To list the locations of all the registers used

**Q.no 29. Which of the following might be used to convert high-level language instructions into machine language?**

A : system software

B : applications software

C : an operating environment

 D : an interpreter

**Q.no 30. Syntax Directed definition that uses synthesized attribute only is called as**

A : L attributed definition

 B : S-attributed definition

C : SL attributed definition

D : R-attributed definition

**Q.no 31. When code is generated for " a < b and c > d" , location left for backpatching are**

A : falselist of a<b

B : falselist of a<b and falselist of c>d

 C : falselist of a<b ,falselist of c>d, truelist of c >d

D : Truelist of a<b,falselist of a<b and falselist of c>d, truelist of c >d

**Q.no 32. Which is NOT a component of activation record**

A : return Value

B : local data

C : Saved machine status

 D : global data

**Q.no 33. When expression sum=3+2 is tokenized then what is the token category of 3?**

A : Identifier

B : Assignment operator

C : Integer Literal

D : Addition Operator

**Q.no 34. The grammar  $A \rightarrow AA \mid (A) \mid e$  is not suitable for predictive-parsing because the grammar is?**

A : Scanning

B : Parsing

C : Derivation

D : Reduction

**Q.no 35. Which statement is used to perform auxiliary functions during macro expansion?**

A : Preprocessor statement

B : Model atatement

C : Prototype statement

D : Macro call

**Q.no 36. The ----- phase receives optimized intermediate codes and generates the code for execution**

A : Code optimization

B : Lexical Analyzer

C : Code Generator

D : Syntax Analyzer

**Q.no 37. Which of the following is used to keep track of currently -active activation**

A : control stack

B : activation

C : execution

D : symbol

**Q.no 38. Which of the following identifies mutually exclusive subroutines?**

A : Linker

B : Assembler

C : Macro

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C : Binders

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B : Parse tree

C : Symol Tree

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- D : Not producing new code**

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$$\begin{aligned}a &= b + c \\c &= a + d \\d &= b + c \\e &= d - b \\a &= e + b\end{aligned}$$

**The minimum number of nodes and edges present in the DAG representation of the above basic block respectively are**

- A : 6 and 6**
- B : 8 and 10
- C : 4 and 4
- D : 8 and 8

**Q.no 60. The least number of temporary variables required to create a three-address code in static single assignment form for the expression**

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- A : 4
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- C : 7
- D : 9

Total number of questions : 60

## PWD10886\_SYSTEMS PROGRAMMING AND OPERATING SYSTEM

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
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---

**Q.no 1. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B** : ready queue

C : cpu

D : secondary storage

**Q.no 2. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

**✓** B : currently running process

C : parent process

D : init process

**Q.no 3. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 4. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

**D : locality of reference is applicable to the process**

**Q.no 5. which of the following is not a type of translator?**

A : assembler

B : compiler

**C : loader**

D : interpreter

**Q.no 6. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

**B : Single buffer**

C : Linear buffer

D : Circular buffer

**Q.no 7. When expression sum=3+2 is tokenized then what is the token category of 3**

A : Identifier

B : Assignment operator

**C : Integer Literal**

D : Addition Operator

**Q.no 8. In priority scheduling algorithm**

- A : CPU is allocated to the process with highest priority
- B : CPU is allocated to the process with lowest priority
- C : Equal priority processes can not be scheduled
- D : Equal priority processes can not be scheduled parallelly

**Q.no 9. Task of the lexical analysis phase is**

- A : to parse the source program into basic elements or tokens of the language
- B : checks that given statement is syntactically correct or not
- C : removes comments and white spaces
- D : Both 1 & 3

**Q.no 10. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

- A : semantic analysis
- B : code generation
- C : syntax analysis
- D : code optimization

**Q.no 11. The purpose of the ORIGIN directive is,**

- A : To indicate the purpose of the code
- B : To indicate the starting of the computation code
- C : To indicate the starting position in memory, where the program block is to be stored
- D : To list the locations of all the registers used

**Q.no 12. The last statement of the source program should be**

- A : Stop
- B : Return
- C : OP

D : End

**Q.no 13. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 14. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 15. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 16. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 17. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 18. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 19. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 20. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 21. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

C : valid – invalid

D : access

**Q.no 22. A self relocating program in one which**

A : can not be made to exercise in any area of storage other than the one designated for it at the time of its coding or translation

B : consists of a program and relevant information for its relocation

C: one itself perform the relocation of its address sensitive positions

D : Both 1 & 2

**Q.no 23. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 24. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : . Semantic analysis

D : Structure analysis

**Q.no 25. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C: is in the process's logical address space

D : is the system's physical address space

**Q.no 26. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C: knowledge of both system and application programming

D : knowledge of hardware

**Q.no 27. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 28. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

 C : generates an error

D : something else

**Q.no 29. Pass-1 of two pass assmbler is used for**

A : synthesizing code

 B : gathering information

C : processing macro

D : expanding macro

**Q.no 30. In which disk information is recorded magnetically on platters.**

 A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 31. What is Scheduling?**

 A : allowing a job to use the processor

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 32. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

~~D~~ : defining a macro

**Q.no 33. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

~~B~~ : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 34. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

~~C~~ : macro

D : none of the mentioned

**Q.no 35. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

~~C~~ : first come, first served

D : critical ratio

**Q.no 36. Which one is a lexer Generator**

A : YACC

B : BISON

~~C~~ : FLEX

D : Ibburg

**Q.no 37. Which of the following isn't a part of the file directory?**

A : Attributes

B : Protocol

C : Location

D : Ownership

**Q.no 38. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 39. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 40. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 41. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 42. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 43. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 44. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 45. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 46. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 47. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 48. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 49. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 50. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 51. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

### **Q.no 52. An imperative statement**

A : Reserves areas of memory and associates names with them

**B** : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

### **Q.no 53. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

**A** : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

### **Q.no 54. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

**A** : Identifier

B : Number

C : Keyword

D : operator

### **Q.no 55. An interpreter is**

A : A program that places programs into memory and prepares them for execution

**B** : A program that appears to execute a source program as if it were machine language

C : A program that automate the translation of assembly language into machine language

D : A program that accepts a program written in high level language and produces an object program

### **Q.no 56. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 57. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 58. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 59. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 60. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 1. syntax analyzer or parser takes the input from a \_\_\_\_\_**

- A : Lexical analyser
- B : Syntactic Analyser
- C : Semantic Analyser
- D : None of the mentioned

**Q.no 2. Virtual memory is**

- A : An extremely large main memory
- B : An extremely large secondary memory
- C : An illusion of extremely large main memory
- D : A type of memory used in super computers

**Q.no 3. The process wherein the processor constantly checks the status flags is called as**

- A : Polling
- B : Inspection
- C : Reviewing
- D : Echoing

**Q.no 4. Output file of Lex is \_\_\_\_\_ , if the input file is Myfile.**

- A : Myfile.e
- B : Myfile.yy.c
- C : Myfile.lex
- D : Myfile.obj

**Q.no 5. The interval from the time of submission of a process to the time of completion is termed as**

- A : waiting time
- B : turnaround time
- C : response time

D : throughput

**Q.no 6. The end of a macro can be represented by the directive**

A : END

B : ENDS

C : MEND

D : ENDD

**Q.no 7. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 8. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 9. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 10. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 11. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

**B : LIFO (Last in First out)**

C : FILO rule (First in last out)

D : None of the above

**Q.no 12. In memory-mapped I/O**

**A : The I/O devices and the memory share the same address space**

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 13. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

**B : File system**

C : Directory management

D : Scheduling and control

**Q.no 14. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

**B : virtual memory**

C : auxiliary memory

D : secondary memory

**Q.no 15. Expansion time variables are used**

A : Before expansion of macro calls

**B : only during expansion of macro calls**

C : After expansion of macro calls

D : Any one of the above

**Q.no 16. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 17. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

D : Least Recently used

**Q.no 18. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

**Q.no 19. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 20. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

**Q.no 21. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 22. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 23. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 24. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 25. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 26. Each entry in a translation lookaside buffer (TL consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 27. Loader is a program that**

A : places programs into memory and prepares them for execution

B : automates the translation of assembly language into machine language

C : accepts a program written in a high level language and produces an object program

D : appers to execute a source program as if it were machine language

**Q.no 28. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 29. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 30. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 31. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 32. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 33. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 34. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

D : protection bit with each page

**Q.no 35. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

A : assigning ready processes to CPU

B : assigning ready processes to waiting queue

C : assigning running processes to blocked queue

D : assign prcess from wating to ready queue

**Q.no 36. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 37. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 38. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 39. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 40. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

~~D~~ : Both A and B

**Q.no 41. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

~~C~~ : the page is in memory

D : the page is not in memory

**Q.no 42. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

~~A~~ : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 43. Which of the following software tool is parser generator ?**

A : Lex

~~B~~ : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 44. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

~~B~~ : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 45. Using a pager**

A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

D : increases the amount of physical memory needed

**Q.no 46. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 47. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 48. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 49. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 50. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 51.** s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 52.** In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 53.** Forward reference table(FRT) is arranged like -

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 54.** How Sequential access method works on random access devices.

A : works well

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 55. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 56. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 57. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 58. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 59. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 60. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

**B : Relocation & Linkage Directory**

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 1. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

**C : Single BUS structure**

D : Node to Node BUS structure

**Q.no 2. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

**C : The devices have to deal with fewer address lines**

D : No advantage as such

**Q.no 3. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

**C : A stream of tokens**

D : A parse tree

**Q.no 4. In priority scheduling algorithm**

**A : CPU is allocated to the process with highest priority**

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 5. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 6. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 7. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 8. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 9. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 10. Effective access time is directly proportional to**

A : memory access time

**B : page-fault rate**

C : hit ratio

D : none of the mentioned

**Q.no 11. which algo. Is nonpreemptive**

A : SJF-P

**B : FCFS**

C : RR

D : Priority

**Q.no 12. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 13. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

**D : Loader**

**Q.no 14. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 15. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 16. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

C : RU policy (Recurrently use

D : Optimal page replacement policy

**Q.no 17. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 18. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 19. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 20. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 21. The offset 'd' of the logical address must be**

A : greater than segment limit

B : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 22. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

B : Shortest service time first

C : Priority by process

D : Random scheduling

**Q.no 23. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 24. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 25. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

 D : Circular SCAN

**Q.no 26. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

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A : knowledge of only system

B : knowledge of only programming

 C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 28. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

 B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 29. Format of macro call is**

A : <macro name> [<actual parameter spec>, ...]

B : <macro name> [<formal parameter spec>, ...]

C : <macro name>

D : <call macro>

**Q.no 30. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 31. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 32. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 33. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 34. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 35. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

B : Preemptive scheduling

C : Shortest job first

D : First come First served

**Q.no 36. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 37. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

B : SJF – Shortest Job First

C : RR – Round Robin

D : priority

**Q.no 38. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 39. Which of the following isn't a part of the file directory?**

A : Attributes

**B : Protocol**

C : Location

D : Ownership

**Q.no 40. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

**D : context free grammar**

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B : Pages are better than segments

**C : Segments have variable sizes**

D : Segments have fixed sizes

**Q.no 44. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

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**Q.no 45. which directive sets the LC with address specified with address specification.**

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B : Pj is waiting for Pi to release a resource that Pj needs

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**Q.no 47. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

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A : A program that places programs into memory and prepares them for execution

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**Q.no 49.** These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 50.** What are the two methods of the LRU page replacement policy that can be implemented in hardware?

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 51.** The translator which translates high level language to machine code is

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 52.** Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.

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B : average

C : maximum

D : approximate

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**A** : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 2.** In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of

A : all process

B : currently running process

C : parent process

D : init process

**Q.no 3. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 4. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

**Q.no 5. On a movable head system, the time it takes to position the head at the track is known as**

A : seek time

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A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 7. Which of the following is used for grouping of characters into tokens?**

- A : Parser
- B : Code optimization
- C : Code generator
- D : Lexical analyser

**Q.no 8. A set of techniques that allow to execute a program which is not entirely in memory is called**

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- C : auxiliary memory
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**Q.no 9. Which technique is used for temporarily removing inactive programs from the memory of computer system**

- A : Swapping
- B : Spooling
- C : Semaphore
- D : Scheduler

**Q.no 10. Output file of Lex is \_\_\_\_\_, if the input file is Myfile.**

- A : Myfile.e
- B : Myfile.yy.c
- C : Myfile.lex
- D : Myfile.obj

**Q.no 11. The pager concerns with the**

- A : entire thread
- B : first page of a process
- C : individual page of a process

D : entire process

**Q.no 12. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

**B : ready queue**

C : cpu

D : secondary storage

**Q.no 13. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 14. Page fault frequency in an operating system is reduced when the**

A : processes tend to the I/O-bound

B : size of pages is reduced

C : processes tend to be CPU-bound

**D : locality of reference is applicable to the process**

**Q.no 15. In assembler design memory allocation to symbols is done in**

**A : pass 1 of assembler**

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 16. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 17. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 18. Task of the lexical analysis phase is**

A : to parse the source program into basic elements or tokens of the language

B : checks that given statement is syntactically correct or not

C : removes comments and white spaces

D : Both 1 & 3

**Q.no 19. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 20. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

B : round robin scheduling algorithm

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 21. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

C : Assembler

D : Loader

**Q.no 22. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

C : MACRO

D : none of the mentioned

**Q.no 23. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 24. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 25. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

D : Both 1 & 2

**Q.no 26. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 27. What is FIFO algorithm?**

A : first executes the job that came in last in the queue

B : first executes the job that came in first in the queue

C : first executes the job that needs minimal processor

D : first executes the job that has maximum processor needs

**Q.no 28. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

C : valid – invalid

D : access

**Q.no 29. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 30. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 31. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 32. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 33. Each entry in a translation lookaside buffer (TL consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 34. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

B : Indexed allocation

C : Contiguous allocation

D : Variable allocation

**Q.no 35. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 36. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 37. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 38. In segmentation, each address is specified by**

A : a segment number & offset

B : an offset & value

C : a value & segment number

D : a key & value

**Q.no 39. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 40. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 41. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 42. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 43. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 44. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 45. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 46. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

~~D : Free Block List~~

**Q.no 47. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

~~C : PL domain and execution domain~~

D : PL domain only

**Q.no 48. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

~~B : Chained Free Portions~~

C : Indexing

D : Free Block List

**Q.no 49. In a two pass assembler the object code generation is done during the ?**

~~A : Second pass~~

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 50. How Sequential access method works on random access devices.**

~~A : works well~~

B : doesnt work well

C : maybe works well and doesnt work well

D : none of the mentioned

**Q.no 51. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 52. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 53. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 54. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

A : page fault occurs

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 55. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 56. Libraries that are loaded and unloaded as and when needed is called as**

- A : Static Linking library
- B : Dynamic linking library**
- C : load time linking library
- D : Both 1 & 2

**Q.no 57. Using a pager**

- A : increases the swap time
- B : decreases the swap time
- C : decreases the swap time & amount of physical memory needed**
- D : increases the amount of physical memory needed

**Q.no 58. Which of the following software tool is parser generator ?**

- A : Lex
- B : Yacc**
- C : Ibburg
- D : both 1 & 3

**Q.no 59. Static memory allocation is typically performed during**

- A : compilation**
- B : execution
- C : loading
- D : linking

**Q.no 60. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by**

- A : the instruction set architecture**
- B : page size
- C : physical memory size
- D : number of processes in memory

**Q.no 1. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

D : Loader

**Q.no 2. Expansion time variables are used**

A : Before expansion of macro calls

B : only during expansion of macro calls

C : After expansion of macro calls

D : Any one of the above

**Q.no 3. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

C : The devices have to deal with fewer address lines

D : No advantage as such

**Q.no 4. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 5. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

C : An illusion of extremely large main memory

D : A type of memory used in super computers

**Q.no 6. In priority scheduling algorithm**

- A : CPU is allocated to the process with highest priority
- B : CPU is allocated to the process with lowest priority
- C : Equal priority processes can not be scheduled
- D : Equal priority processes can not be scheduled parallelly

**Q.no 7. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

- A : Directory Management
- B : Logical I/O
- C : Device I/O
- D : Scheduling and control

**Q.no 8. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

- A : Physical organization
- B : File system
- C : Directory management
- D : Scheduling and control

**Q.no 9. A process is moved to wait queue when I/O request is made with**

- A : non-blocking I/O
- B : blocking I/O
- C : asynchronous I/O
- D : synchronous I/O

**Q.no 10. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

- A : job queue
- B : ready queue
- C : execution queue

D : process queue

**Q.no 11. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

**Q.no 12. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 13. Which of the following type of software should be used if you need to create,edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 14. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 15. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 16. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 17. Nested Macro calls are expanded using the**

A : FIFO rule (First in first out)

B : LIFO (Last in First out)

C : FILO rule (First in last out)

D : None of the above

**Q.no 18. Examples of system program includes**

A : Ticket booking system

B : Banking software

C : Online shopping program

D : Operating System

**Q.no 19. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 20. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 21. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

**C : seek time**

D : rotational latency

**Q.no 22. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

**D : protection bit with each page**

**Q.no 23. Assembler processes**

A : any language

**B : assembly language**

C : c language

D : high level language

**Q.no 24. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

A : Last in first out

**B : Shortest service time first**

C : Priority by process

D : Random scheduling

**Q.no 25. Input of Lex is ?**

**A : set to regular expression**

B : statement

C : Numeric data

D : ASCII data

**Q.no 26. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

~~B : SJF – Shortest Job First~~

C : RR – Round Robin

D : priority

**Q.no 27. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

~~B : Preemptive scheduling~~

C : All of the mentioned

D : processes are classified into groups

**Q.no 28. What is Scheduling?**

~~A : allowing a job to use the processor~~

B : making proper use of processor

C : all of the mentioned

D : none of the mentioned

**Q.no 29. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

~~C : knowledge of both system and application programming~~

D : knowledge of hardware

**Q.no 30. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

D : bridge gap between different systems

**Q.no 31. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

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A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

D : Both A and B

**Q.no 35. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

D : Demand paging

**Q.no 36. which of these is not a pseudocode/assembler directive**

A : USING

B : BALR

C : DROP

D : ORG

**Q.no 37. To obtain better memory utilization, dynamic loading is use With dynamic loading, a routine is not loaded until it is calle For implementing dynamic loading**

A : special support from hardware is required

B : special support from operating system is essential

C : special support from both hardware and operating system is essential

D : user programs can implement dynamic loading without any special support from hardware or operating system

**Q.no 38. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 39. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 40. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

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C : Indicates an action to be performed during optimization

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B : average

C : maximum

D : approximate

#### **Q.no 57. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 58. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

C : Segments have variable sizes

D : Segments have fixed sizes

**Q.no 59. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

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A : the instruction set architecture

B : page size

C : physical memory size

D : number of processes in memory

**Q.no 1. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 2. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 3. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

**Q.no 4. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 5. On a movable head system, the time it takes to position the head at the track is known as**

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B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 7. Which statement declare the name of macro.**

A : macro prototype

B : macro definition

C : macro identification

D : macro call

**Q.no 8. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 9. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D : End

**Q.no 10. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 11. Which technique is used for temporarily removing inactive programs from the memory of computer system**

A : Swapping

B : Spooling

C : Semaphore

D : Scheduler

**Q.no 12. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 13. Effective access time is directly proportional to**

A : memory access time

B : page-fault rate

C : hit ratio

D : none of the mentioned

**Q.no 14. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 15. LRU stands for?**

A : Less Recently used

B : Least Recurrently used

C : Least Randomly used

D : Least Recently used

**Q.no 16. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

**Q.no 17. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

C : Single BUS structure

D : Node to Node BUS structure

**Q.no 18. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

**Q.no 19. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 20. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 21. The real difficulty with SJF in short term scheduling is**

A : it is too good an algorithm

B : knowing the length of the next CPU request

C : it is too complex to understand

D : it is too complex to implement

**Q.no 22. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 23. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 24. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

B : SCAN

C : C-SCAN

D : C-LOOK

**Q.no 25. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

A : procedure

B : subroutine

C : macro

D : none of the mentioned

**Q.no 26. Recognition of basic syntactic constructs through reductions, this task is performed by**

A : Lexical analysis

B : Syntax analysis

C : Semantic analysis

D : Structure analysis

**Q.no 27. With round robin scheduling algorithm in a time shared system**

A : using very large time slices converts it into First come First served scheduling algorithm

B : using very small time slices converts it into First come First served scheduling algorithm

C : using extremely small time slices increases performance

D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 28. Absolute loader loads object code in memory from**

A : Fixed location given by programmer

B : Any location which is free

C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 29. A process is thrashing if**

A : it is spending more time paging than executing

B : it is spending less time paging than executing

C : page fault occurs

D : swapping can not take place

**Q.no 30. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

A : overwrites the word

B : overwrites the functionality

C : generates an error

D : something else

**Q.no 31. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

A : Simultaneous access

B : Compaction

C : External Fragmentation

D : Division

**Q.no 32. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

A : it reduces the memory access time to read or write a memory location

B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 33. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 34. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 35. Which one of the following cannot be scheduled by the kernel?**

A : kernel level thread

B : user level thread

C : process

D : priority Process

**Q.no 36. Which of the following isn't a part of the file directory?**

A : Attributes

B : Protocol

C : Location

D : Ownership

**Q.no 37. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

B : Demand paging

C : Segmentation

D : Swapping

**Q.no 38. in which Swap space exists**

A : cpu

B : primary memory

C : secondary memory

D : none of the mentioned

**Q.no 39. Format of macro call is**

A : <macro name> [<actual parameter spec>, ...]

B : <macro name> [<formal parameter spec>, ...]

C : <macro name>

D : <call macro>

**Q.no 40. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 41. Forward reference table(FRT) is arranged like -**

A : Stack

B : Queue

C : Linked list

D : Double linked list

**Q.no 42. In a two pass assembler the object code generation is done during the ?**

A : Second pass

B : First pass

C : Zeroth pass

D : Not done by assembler

**Q.no 43. Analysis which determines the meaning of a statement once its grammatical structure becomes known is termed as**

A : Semantic analysis

B : Syntax analysis

C : Regular analysis

D : General analysis

**Q.no 44. Which of the following software tool is parser generator ?**

A : Lex

B : Yacc

C : Ibburg

D : both 1 & 3

**Q.no 45. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 46. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 47. Static memory allocation is typically performed during**

A : compilation

B : execution

C : loading

D : linking

**Q.no 48. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

C : FIFO

D : Both optimal replacement and FIFO

**Q.no 49. Which method on free space management, each block is assigned in a reserved portion of the disk.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 50. Libraries that are loaded and unloaded as and when needed is called as**

A : Static Linking library

B : Dynamic linking library

C : load time linking library

D : Both 1 & 2

**Q.no 51. In free space management, which method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 52. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

**D : Both START and ORIGIN**

**Q.no 53. Using a pager**

A : increases the swap time

B : decreases the swap time

**C : decreases the swap time & amount of physical memory needed**

D : increases the amount of physical memory needed

**Q.no 54. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

**A : resources currently available**

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 55. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

**A : page fault occurs**

B : fatal error occurs

C : segmentation fault occurs

D : no error occurs

**Q.no 56. How Sequential access method works on random access devices.**

**A : works well**

B : doesn't work well

C : maybe works well and doesn't work well

D : none of the mentioned

**Q.no 57. In the optimized technique for sequential access removes a page from the buffer as soon as the next page is requested.**

A : write ahead

B : read ahead

C : free-behind

D : add-front

**Q.no 58. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 59. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

B : multiprogramming systems

C : multiprocessor systems

D : operating systems

**Q.no 60. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 1. The system is notified of a read or write operation by**

A : Appending an extra bit of the address

B : Enabling the read or write bits of the devices

C : Raising an appropriate interrupt signal

D : Sending a special signal along the BUS

**Q.no 2. Which of the following type of software should be used if you need to create, edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 3. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

B : currently running process

C : parent process

D : init process

**Q.no 4. The output of a lexical analyzer is**

A : Machine code

B : Intermediate code

C : A stream of tokens

D : A parse tree

**Q.no 5. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 6. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

B : Logical I/O

C : Device I/O

D : Scheduling and control

**Q.no 7. Virtual memory is**

A : An extremely large main memory

B : An extremely large secondary memory

C : An illusion of extremely large main memory

D : A type of memory used in super computers

**Q.no 8. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 9. Assembly language programs are written using**

A : Hex code

B : Mnemonics

C : ASCII code

D : C Language

**Q.no 10. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 11. Task of the lexical analysis phase is**

- A : to parse the source program into basic elements or tokens of the language
- B : checks that given statement is syntactically correct or not
- C : removes comments and white spaces
- ~~D : Both 1 & 3~~

**Q.no 12. which algo. Is nonpreemptive**

- ~~A : SJF-P~~
- ~~B : FCFS~~
- C : RR
- D : Priority

**Q.no 13. Which algorithm is defined in Time quantum?**

- A : shortest job scheduling algorithm
- ~~B : round robin scheduling algorithm~~
- C : priority scheduling algorithm
- D : multilevel queue scheduling algorithm

**Q.no 14. The memory allocation scheme subject to “external” fragmentation is**

- ~~A : segmentation~~
- B : swapping
- C : pure demand paging
- D : multiple fixed contiguous partitions

**Q.no 15. A model statement contains call for another macro is called as**

- A : referential macro call
- ~~B : nested macro call~~
- C : inbuilt macro call
- D : inherited macro call

**Q.no 16. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

- A : Exceptions
- B : Signal handling
- C: Interrupts**
- D : DMA

**Q.no 17. The end of a macro can be represented by the directive**

- A : END
- B : ENDS
- C: MEND**
- D : ENDD

**Q.no 18. which of the following is not a type of translator?**

- A : assembler
- B : compiler
- C : loader**
- D : interpreter

**Q.no 19. The function of OS**

- A : Resource allocator
- B : control program
- C : create user friendly env.
- D: All**

**Q.no 20. The advantage of I/O mapped devices to memory mapped is**

- A : The former offers faster transfer of data
- B : The devices connected using I/O mapping have a bigger buffer space
- C : The devices have to deal with fewer address lines**
- D : No advantage as such

**Q.no 21. Which of the following table is used to identify macro calls?**

- A : Macro Name table
- B : Actual Parameter Table
- C : Parameter Default table
- D : Expansion time variable Table

**Q.no 22. What is FIFO algorithm?**

- A : first executes the job that came in last in the queue
- B : first executes the job that came in first in the queue
- C : first executes the job that needs minimal processor
- D : first executes the job that has maximum processor needs

**Q.no 23. Pass-1 of two pass assembler is used for**

- A : synthesizing code
- B : gathering information
- C : processing macro
- D : expanding macro

**Q.no 24. Input of Lex is ?**

- A : set to regular expression
- B : statement
- C : Numeric data
- D : ASCII data

**Q.no 25. The time taken for the desired sector to rotate to the disk head is called**

- A : positioning time
- B : random access time
- C : seek time
- D : rotational latency

**Q.no 26. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

**B : Shortest Job First**

C : Earliest Deadline First

D : Longest Job First

**Q.no 27. Machine independent phase of the compiler is**

**A : syntax analysis and Lexical analysis**

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 28. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

**C : bridge gap between programmer and system**

D : bridge gap between different systems

**Q.no 29. Process are classified into different groups in**

**A : a process can move to a different classified ready queue**

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 30. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 31. The portion of the process scheduler in an operating system that dispatches processes is concerned with**

- A : assigning ready processes to CPU
- B : assigning ready processes to waiting queue
- C : assigning running processes to blocked queue
- D : assign prcess from wating to ready queue

**Q.no 32. Which of the following is not a Lexemes?**

- A : Identifiers
- B : Constants
- C : Keywords
- D : context free grammar

**Q.no 33. The beginning of the macro definition can be represented as**

- A : START
- B : BEGIN
- C : MACRO
- D : none of the mentioned

**Q.no 34. The policy used to select the disk I/O request that requires the least movement of the disk arm from its current position is**

- A : Last in first out
- B : Shortest service time first
- C : Priority by process
- D : Random scheduling

**Q.no 35. In segmentation, each address is specified by**

- A: a segment number & offset
- B : an offset & value
- C : a value & segment number

D : a key & value

**Q.no 36. Disadvantage of compile and go loading scheme is that**

A : a position of memory is wasted because the case occupied by the assembler is unavailable the object program

B : it is necessary to retranslate the users program check every time it is run

C : Easily handles multiple segments of code

 D : Both 1 & 2

**Q.no 37. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

 A : Leftmost derivation

B : Leftmost derivation traced out in reverse

C : Rightmost derivation

D : ightmost derivation traced out in reverse

**Q.no 38. on free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

 A : Bit table

B : Chained Free Portion

C : Indexing

D : Free Block List

**Q.no 39. a process is copied into the main memory from the secondary memory**

A : Swapping

B : Paging

C : Segmentation

 D : Demand paging

**Q.no 40. In which method, the file allocation table contains a separate one level index for each file, the index has one entry for each portion allocated to the file.**

A : Chained allocation

B : Indexed allocation

C : Contiguous allocation

D : Variable allocation

**Q.no 41. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 42. Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.**

A : minimum

B : average

C : maximum

D : approximate

**Q.no 43. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 44. The translator which translates high level language to machine code is**

A : compiler

B : assembler

C : loader

D : interpreter

**Q.no 45. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

- A : Indexed files
- B : Direct files**
- C : Sequential files
- D : Indexed Sequential files

**Q.no 46. The essential content(s) in each entry of a page table is/are**

- A : Virtual page number
- B : Page frame number**
- C : Both virtual page number and page frame number
- D : Access right information

**Q.no 47. An edge from process Pi to Pj in a wait for graph indicates that**

- A : Pi is waiting for Pj to release a resource that Pi needs**
- B : Pj is waiting for Pi to release a resource that Pj needs
- C : Pi is waiting for Pj to leave the system
- D : Pj is waiting for Pi to leave the system

**Q.no 48. If the wait for graph contains a cycle**

- A : then a deadlock does not exist
- B : then a deadlock exists**
- C : then the system is in a safe state
- D : either deadlock exists or system is in a safe state

**Q.no 49. An assembler is**

- A : programming language dependent
- B : syntax dependant
- C : machine dependant**

D : data dependant

**Q.no 50. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 51. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 52. The linker is**

A : is same as the loader

B : is required to create a load module

C : is always used before programs are executed

D : translator

**Q.no 53. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 54. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 55. A grammar that produces more than one parse tree for some sentence is called**

A : Ambiguous

B : Unambiguous

C : Regular

D : None of these

**Q.no 56. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 57. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 58. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

D : yet another compiler compiler

**Q.no 59. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

C : Indexing

D : Free Block List

**Q.no 60. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 1. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler**

A : semantic analysis

B : code generation

C : syntax analysis

D : code optimization

**Q.no 2. When a user process issues an I/O request, the operating system assigns a buffer in the system portion of main memory to the operation is called**

A : Double buffer

B : Single buffer

C : Linear buffer

D : Circular buffer

**Q.no 3. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

B : Linking loader

C : Cross compiler

D : Load and Go

**Q.no 4. It is used as an index into the page table.**

A : frame bit

B : page number

C : page offset

D : frame offset

**Q.no 5. The usual BUS structure used to connect the I/O devices is**

A : Star BUS structure

B : Multiple BUS structure

C : Single BUS structure

D : Node to Node BUS structure

**Q.no 6. Which command gives dynamic view of process states**

A : PS

B : TOP

C : fork

D : kill

**Q.no 7. The purpose of the ORIGIN directive is,**

A : To indicate the purpose of the code

B : To indicate the starting of the computation code

C : To indicate the starting position in memory, where the program block is to be stored

D : To list the locations of all the registers used

**Q.no 8. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called**

A : job queue

B : ready queue

C : execution queue

D : process queue

**Q.no 9. Which amongst the following is not a valid page replacement policy?**

A : LRU policy (Least Recently Use

B : FIFO policy (First in first out)

C : RU policy (Recurrently use

D : Optimal page replacement policy

**Q.no 10. Which layer deals with the logical structure of files and with the operations that can be specified by users such as open, close, read and write.**

A : Physical organization

B : File system

C : Directory management

D : Scheduling and control

**Q.no 11. what consists of all processes whose memory images are in the backing store or in memory and are ready to run.**

A : wait queue

B : ready queue

C : cpu

D : secondary storage

**Q.no 12. SJF can be**

A : preemptive only

B : nonpreemptive only

C : either preemptive or nonpreemptive

D : sequential

**Q.no 13. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 14. Page fault frequency in an operating system is reduced when the**

- A : processes tend to be I/O-bound
- B : size of pages is reduced
- C : processes tend to be CPU-bound
- D : locality of reference is applicable to the process

**Q.no 15. Effective access time is directly proportional to**

- A : memory access time
- B : page-fault rate
- C : hit ratio
- D : none of the mentioned

**Q.no 16. A macro is**

- A : a small program inside a program
- B : set of special instructions
- C : a unit of specification for program generation through expansion
- D : same as function

**Q.no 17. Nested Macro calls are expanded using the**

- A : FIFO rule (First in first out)
- B : LIFO (Last in First out)
- C : FILO rule (First in last out)
- D : None of the above

**Q.no 18. Examples of system program includes**

- A : Ticket booking system
- B : Banking software
- C : Online shopping program
- D : Operating System

**Q.no 19. In which of the following page replacement policies Balady's anomaly occurs?**

A : FIFO

B : LRU

C : LFU

D : NRU

**Q.no 20. The process wherein the processor constantly checks the status flags is called as**

A : Polling

B : Inspection

C : Reviewing

D : Echoing

**Q.no 21. Round robin scheduling falls under the category of**

A : Non-preemptive scheduling

B : Preemptive scheduling

C : All of the mentioned

D : processes are classified into groups

**Q.no 22. File type can be represented by**

A : file extension

B : file identifier

C : file name

D : none of the mentioned

**Q.no 23. Input to code generator is**

A : Source code

B : Intermediate code

C : Target code

D : tokens

**Q.no 24. Directories, pricing tables, schedules and name lists are the examples of**

A : Indexed files

~~B~~ : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 25. Bit used for Illegal addresses are trapping are called as**

A : error

B : protection

~~C~~ : valid – invalid

D : access

**Q.no 26. The offset ‘d’ of the logical address must be**

A : greater than segment limit

~~B~~ : between 0 and segment limit

C : between 0 and the segment number

D : greater than the segment number

**Q.no 27. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

~~C~~ : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 28. In which disk information is recorded magnetically on platters.**

~~A~~ : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 29. Operating system is**

A : system software

B : application software

C : both 1 & 2

D : not a software

**Q.no 30. Orders are processed in the sequence they arrive if , this rule sequences the jobs.**

A : earliest due date

B : slack time remaining

C : first come, first served

D : critical ratio

**Q.no 31. The file name is generally split into two parts :**

A : name & identifier

B : identifier & type

C : extension & name

D : type & extension

**Q.no 32. Way of specifying arguments in instruction is**

A : instruction format

B : addressing modes

C : both 1 & 2

D : function

**Q.no 33. Assembler processes**

A : any language

B : assembly language

C : c language

D : high level language

**Q.no 34. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 35. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

B : SJF – Shortest Job First

C : RR – Round Robin

D : priority

**Q.no 36. The time taken to move the disk arm to the desired cylinder is called the**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 37. The process of assigning a label or macroname to the string is called**

A : initialising macro

B : initialising string macro

C : defining a string macro

D : defining a macro

**Q.no 38. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

C : Scanner

D : Loader

**Q.no 39. in which Swap space exists**

A : cpu

B : primary memory

**C : secondary memory**

D : none of the mentioned

**Q.no 40. The strategy of making processes that are logically runnable to be temporarily suspended is called**

A : Non preemptive scheduling

**B : Preemptive scheduling**

C : Shortest job first

D : First come First served

**Q.no 41. The FCFS algorithm is particularly troublesome for**

A : time sharing systems

**B : multiprogramming systems**

C : multiprocessor systems

D : operating systems

**Q.no 42. Which of the following page replacement algorithms suffers from Belady's Anomaly?**

A : Optimal replacement

B : LRU

**C : FIFO**

D : Both optimal replacement and FIFO

**Q.no 43. Segment replacement algorithms are more complex than page replacement algorithms because**

A : Segments are better than pages

B : Pages are better than segments

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D : Segments have fixed sizes

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B : Queue

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B : page size

C : physical memory size

D : number of processes in memory

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A : increases the swap time

B : decreases the swap time

C : decreases the swap time & amount of physical memory needed

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**Q.no 51. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs**

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B : fatal error occurs

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D : no error occurs

**Q.no 52. An interpreter is**

A : A program that places programs into memory and prepares them for execution

B : A program that appears to execute a source program as if it were machine language

C : A program that automates the translation of assembly language into machine language

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B : Syntax analysis

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A : Static Linking library

B : Dynamic linking library

C : load time linking library

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A : PL domain and storage domain

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**Q.no 58. Which of the following software tool is parser generator ?**

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**Q.no 60. s free space management has the advantages that it relatively easy to find one or a contiguous group of free blocks.**

A : Bit tables

B : Chained Free Portions

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D : Free Block List

**Q.no 1. Output of pass 1 assembler is**

A : object code

B : intermediate code

C : assembly language code

D : machine code

**Q.no 2. Literal table stores**

A : Numbers from code

B : variables from code

C : instruction

D : Opcodes

**Q.no 3. The memory allocation scheme subject to “external” fragmentation is**

A : segmentation

B : swapping

C : pure demand paging

D : multiple fixed contiguous partitions

**Q.no 4. The method which offers higher speeds of I/O transfers is**

A : Interrupts

B : Memory mapping

C : Program-controlled I/O

D : DMA

**Q.no 5. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?**

A : first-come, first-served scheduling

B : shortest job scheduling

C : priority scheduling

D : Round Robin

**Q.no 6. Time sharing system is implemented using**

A : FCFS

B : SJF

C : RR

D : priority

**Q.no 7. The data-in register of I/O port is**

A : Read by host to get input

B : Read by controller to get input

C : Written by host to send output

D : Written by host to start a command

#### **Q.no 8. process is trash**

A : it spends more time paging than executing

B : it spends less time paging than executing

C : page fault occurs

D : swapping can not take place

#### **Q.no 9. To access services from OS, an interface is provided Called as**

A : System call

B : API

C : library

D : shell

#### **Q.no 10. In assembler design memory allocation to symbols is done in**

A : pass 1 of assembler

B : pass 2 of assembler

C : In both the passes

D : at the time of synthesis

#### **Q.no 11. Which of the following is not an intermediate code form?**

A : Postfix notation

B : Syntax trees

C : Three address codes

D : Prefix notation

#### **Q.no 12. In priority scheduling algorithm**

A : CPU is allocated to the process with highest priority

B : CPU is allocated to the process with lowest priority

C : Equal priority processes can not be scheduled

D : Equal priority processes can not be scheduled parallelly

**Q.no 13. A model statement contains call for another macro is called as**

A : referential macro call

B : nested macro call

C : inbuilt macro call

D : inherited macro call

**Q.no 14. Which of the following is used for grouping of characters into tokens?**

A : Parser

B : Code optimization

C : Code generator

D : Lexical analyser

**Q.no 15. LR stands for**

A : Left to right

B : Left to right reduction

C : Right to left

D : Left to right and right most derivation in reverse

**Q.no 16. which algo. Is nonpreemptive**

A : SJF-P

B : FCFS

C : RR

D : Priority

**Q.no 17. In memory-mapped I/O**

A : The I/O devices and the memory share the same address space

B : The I/O devices have a separate address space

C : The memory and I/O devices have an associated address space

D : A part of the memory is specifically set aside for the I/O operation

**Q.no 18. A set of techniques that allow to execute a program which is not entirely in memory is called**

A : demand paging

B : virtual memory

C : auxiliary memory

D : secondary memory

**Q.no 19. A macro can be defined at**

A : beginning of a program

B : end of a program

C : after initialisation of program

D : anywhere in a program

**Q.no 20. The interval from the time of submission of a process to the time of completion is termed as**

A : waiting time

B : turnaround time

C : response time

D : throughput

**Q.no 21. In multilevel feedback scheduling algorithm**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

C : processes are not classified into groups

D : processes are classified into groups

**Q.no 22. Loader is a program that**

- A : places programs into memory and prepares them for execution
- B : automates the translation of assembly language into machine language
- C : accepts a program written in a high level language and produces an object program
- D : appears to execute a source program as if it were machine language

**Q.no 23. Which one of the following cannot be scheduled by the kernel?**

- A : kernel level thread
- B : user level thread
- C : process
- D : priority Process

**Q.no 24. Which of the following derivation a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order ?**

- A : Leftmost derivation
- B : Leftmost derivation traced out in reverse
- C : Rightmost derivation
- D : ightmost derivation traced out in reverse

**Q.no 25. If the lexical analyser finds a lexeme with the same name as that of a reserved word,it \_\_\_\_\_**

- A : overwrites the word
- B : overwrites the functionality
- C : generates an error
- D : something else

**Q.no 26. Absolute loader loads object code in memory from**

- A : Fixed location given by programmer
- B : Any location which is free
- C : Fixed location given by assembler

D : Any location and overwrites existing contents

**Q.no 27. Format of macro call is**

A : <macro name> [<actual parameter spec>, ...]

B : <macro name> [<formal parameter spec>, ...]

C : <macro name>

D : <call macro>

**Q.no 28. Memory protection in a paged environment is accomplished by**

A : protection algorithm with each page

B : restricted access rights to users

C : restriction on page visibility

**D : protection bit with each page**

**Q.no 29. Translator for low level programming language were termed as**

A : Compiler

B : Interpreter

**C : Assembler**

D : Loader

**Q.no 30. Yacc resolves conflicts by of type ?**

A : Reduce - Reduce

B : Shift - Reduce

C : Shift - Shift

**D : Both A and B**

**Q.no 31. The concept in which a process is copied into the main memory from the secondary memory according to the requirement.**

A : Paging

**B : Demand paging**

C : Segmentation

D : Swapping

**Q.no 32. The time taken for the desired sector to rotate to the disk head is called**

A : positioning time

B : random access time

C : seek time

D : rotational latency

**Q.no 33. Which of the following algorithms tends to minimize the process flow time?**

A : First come First served

B : Shortest Job First

C : Earliest Deadline First

D : Longest Job First

**Q.no 34. Linking is process of binding**

A : Internal part of a program

B : external functional call

C : External reference to the correct link time address

D : None of the above

**Q.no 35. Which one is a lexer Generator**

A : YACC

B : BISON

C : FLEX

D : Ibburg

**Q.no 36. Shell is the exclusive feature of**

A : Dos

B : Unix

C : System software

D : Application software

**Q.no 37. Machine independent phase of the compiler is**

A : syntax analysis and Lexical analysis

B : only lexical analysis

C : Code optimization

D : code generation

**Q.no 38. In this policy, when the last track has been visited in one direction, the arm is returned to the opposite end of the disk and the scan begins again.**

A : Last in first out

B : Shortest service time first

C : SCAN

**D : Circular SCAN**

**Q.no 39. When access is granted to append or update a file to more than one user, the OS or file management system must enforce discipline. This is**

**A : Simultaneous access**

B : Compaction

C : External Fragmentation

D : Division

**Q.no 40. Pass-1 of two pass assmbler is used for**

A : synthesizing code

**B : gathering information**

C : processing macro

D : expanding macro

**Q.no 41. YACC stands for**

A : yet accept compiler constructs

B : yet accept compiler compiler

C : yet another compiler constructs

~~D : yet another compiler compiler~~

**Q.no 42.** Given a priori information about the number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.

A : minimum

B : average

~~C : maximum~~

D : approximate

**Q.no 43. The linker is**

A : is same as the loader

~~B : is required to create a load module~~

C : is always used before programs are executed

D : translator

**Q.no 44. The translator which translates high level language to machine code is**

~~A : compiler~~

B : assembler

C : loader

D : interpreter

**Q.no 45. A grammar that produces more than one parse tree for some sentence is called**

~~A : Ambiguous~~

B : Unambiguous

C : Regular

D : None of these

**Q.no 46. If the wait for graph contains a cycle**

A : then a deadlock does not exist

B : then a deadlock exists

C : then the system is in a safe state

D : either deadlock exists or system is in a safe state

**Q.no 47. which directive sets the LC with address specified with address specification.**

A : START

B : END

C : ORIGIN

D : Both START and ORIGIN

**Q.no 48. The valid – invalid bit, in this case, when valid indicates?**

A : the page is not legal

B : the page is illegal

C : the page is in memory

D : the page is not in memory

**Q.no 49. The essential content(s) in each entry of a page table is/are**

A : Virtual page number

B : Page frame number

C : Both virtual page number and page frame number

D : Access right information

**Q.no 50. An edge from process Pi to Pj in a wait for graph indicates that**

A : Pi is waiting for Pj to release a resource that Pi needs

B : Pj is waiting for Pi to release a resource that Pj needs

C : Pi is waiting for Pj to leave the system

D : Pj is waiting for Pi to leave the system

**Q.no 51. RLD in Direct linking loader stands for**

A : Redirection and Load Directory

B : Relocation & Linkage Directory

C : Relocation and Load Directory

D : Redirection and Linkage Directory

**Q.no 52. What are the two methods of the LRU page replacement policy that can be implemented in hardware?**

A : Counters

B : RAM & Registers

C : Stack & Counters

D : Registers

**Q.no 53. An imperative statement**

A : Reserves areas of memory and associates names with them

B : Indicates an action to be performed during execution of assembled program

C : Indicates an action to be performed during optimization

D : allocate space for literals

**Q.no 54. These file are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time.**

A : Indexed files

B : Direct files

C : Sequential files

D : Indexed Sequential files

**Q.no 55. An assembler is**

A : programming language dependent

B : syntax dependant

C : machine dependant

D : data dependant

**Q.no 56. When expression "int var1,var2;" is tokenized then what is the token category of 'var1 '**

A : Identifier

B : Number

C : Keyword

D : operator

**Q.no 57. Each request requires that the system consider to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.**

A : resources currently available

B : processes that have previously been in the system

C : resources currently allocated to each process

D : future requests and releases of each process

**Q.no 58. A deadlock avoidance algorithm dynamically examines the state to ensure that a circular wait condition can never exist.**

A : resource allocation state

B : system storage state

C : operating system

D : resources

**Q.no 59. A compiler bridges the semantic gap between .....**

A : PL domain and storage domain

B : execution domain and syntax domain

C : PL domain and execution domain

D : PL domain only

**Q.no 60. If linked origin is not equal to translated address then relocation is performed by**

A : Absolute Loader

B : Loader

C : Linker

D : Assembler

**Q.no 1. Which of the following system software resides in main memory always ?**

A : Text editor

B : Assembler

C : Linker

D : Loader

**Q.no 2. Which module deals with the device as a logical resource and is not concerned with the details of actually controlling the device.**

A : Directory Management

B : Logical I/O

C : Device I/O

D : Scheduling and control

**Q.no 3. A macro is**

A : a small program inside a program

B : set of special instructions

C : a unit of specification for program generation through expansion

D : same as function

**Q.no 4. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is?**

A : Exceptions

B : Signal handling

C : Interrupts

D : DMA

**Q.no 5. Which of the following type of software should be used if you need to create, edit and print document ?**

A : word processor

B : spreadsheet

C : desktop publishing

D : Unix

**Q.no 6. Output file of Lex is \_\_\_\_\_ , if the input file is Myfile.**

A : Myfile.e

~~B : Myfile.yy.c~~

C : Myfile.lex

D : Myfile.obj

**Q.no 7. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of**

A : all process

~~C : currently running process~~

C : parent process

D : init process

**Q.no 8. Which statement declare the name of macro.**

~~A : macro prototype~~

B : macro definition

C : macro identification

D : macro call

**Q.no 9. The advantage of I/O mapped devices to memory mapped is**

A : The former offers faster transfer of data

B : The devices connected using I/O mapping have a bigger buffer space

~~C : The devices have to deal with fewer address lines~~

D : No advantage as such

**Q.no 10. Expansion time variables are used**

A : Before expansion of macro calls

B : only during expansion of macro calls

C : After expansion of macro calls

D : Any one of the above

**Q.no 11. The last statement of the source program should be**

A : Stop

B : Return

C : OP

D . End

**Q.no 12. The function of OS**

A : Resource allocator

B : control program

C : create user friendly env.

D : All

**Q.no 13. Relocatable programs**

A : cannot be used with fixed partitions

B : can be loaded almost anywhere in memory

C : do not need a linker

D : can be loaded only at one specific location

**Q.no 14. On a movable head system, the time it takes to position the head at the track is known as**

A : seek time

B : rotational delay

C : access time

D : Transfer time

**Q.no 15. Which module gives control of the CPU to the process selected by the short-term scheduler?**

A : Dispatcher

B : interrupt

C : scheduler

D : interpreter

**Q.no 16. Which algorithm is defined in Time quantum?**

A : shortest job scheduling algorithm

**B : round robin scheduling algorithm**

C : priority scheduling algorithm

D : multilevel queue scheduling algorithm

**Q.no 17. The process wherein the processor constantly checks the status flags is called as**

**A : Polling**

B : Inspection

C : Reviewing

D : Echoing

**Q.no 18. A system program that combines the separately compiled modules of a program into a form suitable for execution ?**

A : Assembler

**B : Linking loader**

C : Cross compiler

D : Load and Go

**Q.no 19. syntax analyzer or parser takes the input from a \_\_\_\_\_**

**A : Lexical analyser**

B : Syntactic Analyser

C : Semantic Analyser

D : None of the mentioned

**Q.no 20. The output of a lexical analyzer is**

- A : Machine code
- B : Intermediate code
- C : A stream of tokens
- D : A parse tree

**Q.no 21. Input of Lex is ?**

- A : set to regular expression
- B : statement
- C : Numeric data
- D : ASCII data

**Q.no 22. If a number of instructions are repeating through the main program, then what is to be used to reduce the length of the program**

- A : procedure
- B : subroutine
- C : macro
- D : none of the mentioned

**Q.no 23. With round robin scheduling algorithm in a time shared system**

- A : using very large time slices converts it into First come First served scheduling algorithm
- B : using very small time slices converts it into First come First served scheduling algorithm
- C : using extremely small time slices increases performance
- D : using very small time slices converts it into Shortest Job First algorithm

**Q.no 24. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because**

- A : it reduces the memory access time to read or write a memory location
- B : it helps to reduce the size of page table needed to implement the virtual address space of a process

C : it is required by the translation lookaside buffer

D : it helps to reduce the number of page faults in page replacement algorithms

**Q.no 25. In which disk information is recorded magnetically on platters.**

A : magnetic disks

B : electrical disks

C : assemblies

D : cylinders

**Q.no 26. System programmer needs**

A : knowledge of only system

B : knowledge of only programming

C : knowledge of both system and application programming

D : knowledge of hardware

**Q.no 27. Lexemes can be referred to as**

A : elements of lexicography

B : sequence of alphanumeric characters in a token

C : lexical errors

D : none of the mentioned

**Q.no 28. When the valid – invalid bit is set to valid, it means that the associated page**

A : is in the TLB

B : has data in it

C : is in the process's logical address space

D : is the system's physical address space

**Q.no 29. Process are classified into different groups in**

A : a process can move to a different classified ready queue

B : classification of ready queue is permanent

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**Q.no 30. START pseudo code is used for**

A : setting initial value of LC and specifies start of program

B : Specifying start of a Register Table

C : specifies start of literal table

D : specifies start of symbol table

**Q.no 31. Which of the following is not a Lexemes?**

A : Identifiers

B : Constants

C : Keywords

D : context free grammar

**Q.no 32. Each entry in a translation lookaside buffer (TL) consists of**

A : key

B : value

C : bit value

D : constant

**Q.no 33. Which of the following table is used to identify macro calls?**

A : Macro Name table

B : Actual Parameter Table

C : Parameter Default table

D : Expansion time variable Table

**Q.no 34. Which is the most optimal scheduling algorithm?**

A : FCFS – First come First served

B : SJF – Shortest Job First

C : RR – Round Robin

D : priority

**Q.no 35. The beginning of the macro definition can be represented as**

A : START

B : BEGIN

**C : MACRO**

D : none of the mentioned

**Q.no 36. which of these is not a pseudocode/assembler directive**

A : USING

**B : BALR**

C : DROP

D : ORG

**Q.no 37. Operating system is**

**A : system software**

B : application software

C : both 1 & 2

D : not a software

**Q.no 38. In which algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.**

A : LOOK

**B : SCAN**

C : C-SCAN

D : C-LOOK

**Q.no 39. \_\_\_\_\_ a part of a compiler that takes as input a stream of characters and produces output as a meaningful token .**

A : Parser

B : Optimizer

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**Q.no 40. System softwares are used to**

A : bridge gap between different applications

B : bridge gap between different users

C : bridge gap between programmer and system

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B : multiprogramming systems

C : multiprocessor systems

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B : doesnt work well

C : maybe works well and doesnt work well

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**B** : Page frame number

C : Both virtual page number and page frame number

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**Q.no 60. When expression "int var1,var2;" is tokenized then what is the token category of 'var1'**

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B : Number

C : Keyword

D : operator

# Operating System Questions & Answers – Processes

This set of Operating System Multiple Choice Questions & Answers (MCQs) focuses on “Processes”.

1. The systems which allow only one process execution at a time, are called \_\_\_\_\_

- a) uniprogramming systems
- b) uniprocessing systems
- c) unitasking systems
- d) none of the mentioned

Answer:b

Explanation: Those systems which allows more than one process execution at a time, are called multiprogramming systems. Uniprocessing means only one processor.

2. In operating system, each process has its own \_\_\_\_\_

- a) address space and global variables
- b) open files
- c) pending alarms, signals and signal handlers
- d) all of the mentioned

Answer:d

Explanation: None.

3. In Unix, Which system call creates the new process?

- a) fork
- b) create
- c) new
- d) none of the mentioned

Answer:a

Explanation: None.

4. A process can be terminated due to \_\_\_\_\_

- a) normal exit
- b) fatal error
- c) killed by another process
- d) all of the mentioned

Answer: d

Explanation: None.

5. What is the ready state of a process?

- a) when process is scheduled to run after some execution
- b) when process is unable to run until some task has been completed
- c) when process is using the CPU
- d) none of the mentioned

Answer: a

Explanation: When process is unable to run until some task has been completed, the process is in blocked state and if process is using the CPU, it is in running state.

6. What is interprocess communication?

- a) communication within the process
- b) communication between two process
- c) communication between two threads of same process

d) none of the mentioned

Answer: b

Explanation: None.

7. A set of processes is deadlock if \_\_\_\_\_

- a) each process is blocked and will remain so forever
- b) each process is terminated
- c) all processes are trying to kill each other
- d) none of the mentioned

Answer: a

Explanation: None.

8. A process stack does not contain \_\_\_\_\_

- a) Function parameters
- b) Local variables
- c) Return addresses
- d) PID of child process

Answer: d

Explanation: None.

9. Which system call returns the process identifier of a terminated child?

- a) wait
- b) exit
- c) fork
- d) get

Answer: a

Explanation: None.

10. The address of the next instruction to be executed by the current process is provided by the \_\_\_\_\_

- a) CPU registers
- b) Program counter
- c) Process stack
- d) Pipe

Answer: b

Explanation: None.

This set of Operating System Multiple Choice Questions & Answers (MCQs) focuses on “**CPU Scheduling**”.

1. Which module gives control of the CPU to the process selected by the short-term scheduler?

- a) dispatcher
- b) interrupt
- c) scheduler
- d) none of the mentioned

Answer: a

Explanation: None.

2. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called \_\_\_\_\_
- a) job queue
  - b) ready queue
  - c) execution queue
  - d) process queue

Answer: b

Explanation: None.

3. The interval from the time of submission of a process to the time of completion is termed as \_\_\_\_\_
- a) waiting time
  - b) turnaround time
  - c) response time
  - d) throughput

Answer: b

Explanation: None.

4. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?
- a) first-come, first-served scheduling
  - b) shortest job scheduling
  - c) priority scheduling
  - d) none of the mentioned

Answer: a

Explanation: None.

5. In priority scheduling algorithm \_\_\_\_\_
- a) CPU is allocated to the process with highest priority
  - b) CPU is allocated to the process with lowest priority
  - c) Equal priority processes can not be scheduled
  - d) None of the mentioned

Answer: a

Explanation: None.

6. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of \_\_\_\_\_
- a) all process
  - b) currently running process
  - c) parent process
  - d) init process

Answer: b

Explanation: None.

7. Which algorithm is defined in Time quantum?
- a) shortest job scheduling algorithm
  - b) round robin scheduling algorithm
  - c) priority scheduling algorithm
  - d) multilevel queue scheduling algorithm

Answer: b

Explanation: None.

8. Process are classified into different groups in \_\_\_\_\_

- a) shortest job scheduling algorithm
- b) round robin scheduling algorithm
- c) priority scheduling algorithm
- d) multilevel queue scheduling algorithm

Answer: d

Explanation: None.

9. In multilevel feedback scheduling algorithm \_\_\_\_\_

- a) a process can move to a different classified ready queue
- b) classification of ready queue is permanent
- c) processes are not classified into groups
- d) none of the mentioned

Answer: a

Explanation: None.

10. Which one of the following can not be scheduled by the kernel?

- a) kernel level thread
- b) user level thread
- c) process
- d) none of the mentioned

Answer: b

Explanation: User level threads are managed by thread library and the kernel is unaware of them.

This set of Operating System Multiple Choice Questions & Answers (MCQs) focuses on “Deadlock”.

1. What is a reusable resource?

- a) that can be used by one process at a time and is not depleted by that use
- b) that can be used by more than one process at a time
- c) that can be shared between various threads
- d) none of the mentioned

Answer: a

Explanation: None.

2. Which of the following condition is required for a deadlock to be possible?

- a) mutual exclusion
- b) a process may hold allocated resources while awaiting assignment of other resources
- c) no resource can be forcibly removed from a process holding it
- d) all of the mentioned

Answer: d

Explanation: None.

3. A system is in the safe state if \_\_\_\_\_

- a) the system can allocate resources to each process in some order and still avoid a deadlock
- b) there exist a safe sequence
- c) all of the mentioned
- d) none of the mentioned

Answer: a

Explanation: None.

4. The circular wait condition can be prevented by \_\_\_\_\_
- a) defining a linear ordering of resource types
  - b) using thread
  - c) using pipes
  - d) all of the mentioned

Answer: a

Explanation: None.

5. Which one of the following is the deadlock avoidance algorithm?
- a) banker's algorithm
  - b) round-robin algorithm
  - c) elevator algorithm
  - d) karn's algorithm

Answer: a

Explanation: None.

6. What is the drawback of banker's algorithm?
- a) in advance processes rarely know how much resource they will need
  - b) the number of processes changes as time progresses
  - c) resource once available can disappear
  - d) all of the mentioned

Answer: d

Explanation: None.

7. For an effective operating system, when to check for deadlock?
- a) every time a resource request is made
  - b) at fixed time intervals
  - c) every time a resource request is made at fixed time intervals
  - d) none of the mention

Answer: c

Explanation: None.

8. A problem encountered in multitasking when a process is perpetually denied necessary resources is called \_\_\_\_\_
- a) deadlock
  - b) starvation
  - c) inversion
  - d) aging

Answer: b

Explanation: None.

9. Which one of the following is a visual ( mathematical ) way to determine the deadlock occurrence?
- a) resource allocation graph
  - b) starvation graph
  - c) inversion graph
  - d) none of the mentioned

Answer: a

Explanation: None.

10. To avoid deadlock \_\_\_\_\_

- a) there must be a fixed number of resources to allocate
- b) resource allocation must be done only once
- c) all deadlocked processes must be aborted
- d) inversion technique can be used

Answer: a

Explanation: None.

**Total- (10+10+10)**

\*\*\*\*\* SPOS Question Bank on unit-IV

1. Dual mode of operating system has

- A. 1 mode
- B. 2 modes
- C. 3 modes
- D. 4 modes

ANSWER: B

2. Multi-processor system gives a

- A. small system
- B. tightly coupled system
- C. loosely coupled system
- D. both a and b

Answer B

3. Logical extension of multiprogramming operating system is

- A. time sharing
- B. multi-tasking
- C. single programming
- D. both a and b

Answer D

4. Multiprocessor system have advantage of

- A. Increased Throughput
- B. Expensive hardware
- C. operating system
- D. both a and b

ANSWER:A

5. Scheduling of threads are done by

- A.** input
- B.** output
- C.** operating system
- D.** memory

ANSWER:C

**6.** Multiprogramming of computer system increases

- A.** memory
- B.** storage
- C.** CPU utilization

**D.** cost

ANSWER:

C

7. Another type of multiple-CPU system is the

- A.** mini Computer
- B.** Super Computer
- C.** Clustered System
- D.** both a and b

ANSWER:

C

8. Interrupt table of pointers having addresses for each interrupt is located at

- A.** high memory
- B.** low memory
- C.** mid memory
- D.** both a and b

ANSWER:

B

9. Example of open source operating system is

- A.** UNIX
- B.** Linux
- C.** windows
- D.** both a and b

ANSWER:

D

10. Main memory of computer system is also called

- A.** non volatile
- B.** volatile
- C.** reserved
- D.** large

ANSWER: B

11. Controller of computer system transfers data from device to

- A.** buffers
- B.** cache
- C.** registers
- D.** in  
dexes

ANSWER:

A

**12.** When many users accesses mainframes, this approach is called as

- A.** resource allocation
- B.** word processors
- C.** dedicated resources
- D.** interface

ANSWER: A

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**13.** Accessing same data from storage of computer system is provided by

- A. serial clusters
- B. parallel clusters
- C. Beowulf clusters
- D. both a and b

ANSWER:

B

**14.** To start an I/O operation device driver loads appropriate register into?

- A. memory
- B. Secondary storage
- C. Device Controller
- D. Ar  
rays

ANSWER:

C

**15.** Symmetric multiprocessing architecture of computer system uses shared

- A. bus
- B. memory
- C. processors

- D. both a and

b ANSWER: D

**16.** In asymmetric clustering other machines perform operations while one machine is in

- A. hot standby mode
- B. standby mode
- C. reset mode
- D. undefined mode

ANSWER: A

A

**17.** Ability to continuously providing service proportional to level of surviving hardware

- A. graceful upgradation
- B. degradation
- C. upgradation
- D. graceful

degradation

ANSWER: D

**18.** Secondary memory of computer system is also called

- A. non volatile
- B. volatile
- C. reserved
- D. small

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ANSWER: A

**19.** Environment in which programs of computer system are executed is:

- A. operating system
- B. nodes
- C. clustered system
- D. both a and b

ANSWER:

A

**20.** One word memory storage is collection of

- A. 2 bytes
- B. 4 bytes
- C. 7 bytes
- D. 8  
byt

es

ANSWER:

B

**21.** Each user of computer system that uses computer services has at least

- A. 1program
- B. 2programs
- C. 3programs
- D. 4programs

ANSWER:

A

**22.** Clusters of computer system can be used more efficiently using

- A. serialization
- B. parallelization
- C. LAN
- D. WAN

ANSWER: B

**23.** A properly designed operating system must ensure that an incorrect (or malicious) program cannot cause other programs to execute

- A. incorrectly
- B. Correctly
- C. both a and b
- D. None

ANSWER: A

24. Table of pointers for interrupt to be executed contains the

- A. interrupts
- B. programs
- C. addresses
- D. compilers

ANSWER: C

25. User view of system depends upon the

- A. CPU
- B. software
- C. hardware
- D. interface

ANSWER: D

26. Memories are normally classified according to their

- A. speed
- B. cost
- C. indexes
- D. both a and b

ANSWER:

D

27. SCSI system is abbreviation of the

- A. small common-system interface
- B. small common-system interaction
- C. small computer-system interface
- D. small computer-system interaction

ANSWER: C

28. One megabyte memory storage in form of bytes is equal to

- A. 1024 bytes

- B.**  $1024^2$  bytes
- C.**  $1024^3$  bytes
- D.  $1024^{&sup4;}$  bytes

ANSWER: B

**29.** Multi-processing systems of computer system are of

- A.** 2 types
- B.** 3 types
- C.** 4 types
- D.** 5 types

ANSWER: A

**30.** Clustered computer systems are normally linked via

- A.** LAN
- B.** WAN

- C. PAN
- D. TAN

ANSWER: A

31. Kernel mode of operating system runs when mode bit is

- A. 1
- B. 0
- C. x
- D. undefined

ANSWER:  
B

32. Kernel mode of operating system is also called

- A. user mode
- B. system mode
- C. supervisor mode
- D. both a and b

ANSWER:  
C

33. Multi-processor systems of computer system has advantage of

- A. cost
- B. reliability
- C. uncertainty
- D. scalability

ANSWER: B

34. Time sharing systems of computer system have

- A. clusters
- B. nodes
- C. file system
- D. both a and b

ANSWER:C

35. One megabyte memory storage in form of bytes is equal to

- A. 1024 bytes
- B. 1024 kilo bytes
- C. 1056 bytes

**D.** 1058 kilo  
bytes  
ANSWER: B

**36.** Privileged mode of operating system mode is a

**A.** user code

- B.** kernel mode
- C.** system mode
- D.** both b and c

ANSWER:

B

**37.** Example of bug in one program of operating system effects others in

- A.** zero error
- B.** infinite loop
- C.** invalid memory access
- D.** both a and b

ANSWER:

B

**38.** Master slave relationship in computer system is used by

- A.** symmetric multiprocessor
- B.** asymmetric multiprocessor
- C.** symmetric multiprocessing
- D.** asymmetric  
multiprocessing

ANSWER: D

**39.** Beowulf clusters of computer system uses

- A.** close source softwares
- B.** open source softwares
- C.** dedicated softwares
  - both a  
and b

**D.** ANSWER:

B

**40.** In non-multiprogrammed system Central Processing Unit will

- A.** sit idle
- B.** perform well
- C.** cost high
- D.** cost low

ANSWER: B

**41.** When a thread needs to wait for an event it will

- A.** Block
- B.** Execute
- C.** Terminate

- D. Update

ANSWER:A

**42.** In a pure Kernel Level Thread facility all of work of thread management is done by the

- A. Application
- B. Program
- C. Kernel
- D. Threads

ANSWER:C

**43.** Microkernel design imposes a uniform

- A. Process
- B. Processor
- C. Interface
- D. System

ANSWER:C

**44.** Microkernel architecture facilitates

- A. Functionality
- B. Extensibility
- C. Reliability
- D. Portability

ANSWER:B

**45.** Asynchronous elements in program can be implemented through

- A. Bugs
- B. Threads
- C. Programs
- D. Security Policy

ANSWER:B

**46.** Unit of dispatching is usually referred as

- A. Multiprogramming
- B. Security Policy
- C. Problem
- D. Thread

ANSWER:D

**47.** A single machine instruction can controls simultaneous execution of a number processing elements on

- A. Lockstep Basis
- B. Open Step Basis
- C. Early Basis
- D. None

ANSWER:A

**48.** Owner of an address space can grant a number of its

- A. Modules
- B. Pages
- C. Devices
- D. Computers

ANSWER:B

**49.** Microkernel lends itself to

- A. Computers
- B. Systems
- C. Distributed Systems
- D. Applications

ANSWER:C

**50.** Microkernel supports

- A. Flexibility
- B. Reliability
- C. Accessible
- D. Rigid

ANSWER:A

**51.** In Many-to-One multithreading model many user level threads are attached to

- A. One register
- B. operating system
- C. One kernel thread
- D. other threads

ANSWER:C

**52.** Programs involve a variety of activities is easier to design and implement using

- A. Programs
- B. Information

- C. Data
- D. Threads

ANSWER:D

**53.** Multiple threads within same process may be allocated to separate

- A. Applications
- B. Programs
- C. Processors
- D. Processes

ANSWER:C

**54.** A lightweight process (LWP) can be viewed as a mapping between ULTs and

- A. Kernel Threads
- B. UNIX Thread
- C. Linux Threads
- D. WindowVista Threads

ANSWER:A

**55.** Modular design helps to enhance

- A. Functionality
- B. Reliability
- C. Portability
- D. Flexibility

ANSWER:B

**56.** Microkernel is responsible for mapping each virtual

- A. Module
- B. I/O Devices
- C. Memory
- D. Page

ANSWER:D

**57.** Thread processor affinity is set of

- A. Processes
- B. Processors
- C. Programs
- D. Applications

ANSWER:B

**58.** In UNIX, thread is

- A. Runnable
- B. Executing
- C. Updated
- D. Access

ANSWER:A

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**59.** When a process is spawned, a thread for that process is also

- A. Complete
- B. Spawed
- C. Closed
- D. Update

ANSWER:B

**60.** A sequence of data is transmitted to a set of

- A. Devices
- B. Resources
- C. Computers
- D. Processors

ANSWER:D

**61.** A set of processors simultaneously execute different instructions on different

- A. Buffers
- B. Data Set
- C. Buses
- D. Registers

ANSWER:B

**62.** A new process is created in Linux by copying the

- A. Address
- B. ID
- C. Object
- D. Attributes

ANSWER:D

**63.** Multithreading refers to ability of an operating system to support multiple

- A. Execution
- B. Updating
- C. Completion
- D. None

ANSWER:A

**64.** A microkernel architecture works well in context of an

- A. Object Oriented Operating System
- B. Internal device
- C. Interface
- D. Attractive Feature
- E. ANSWER:A

**65.** When a new process is created in Win32 new process inherits many of its

- A. Classes
- B. Objects
- C. Parent Attributes
- D. Functions

ANSWER:C

**66.** A single processor executes a single instruction stream to operate on data stored in a single

- A. Computer
- B. System
- C. Memory
- D. Device

ANSWER:C

**67.** Each windows process is represented by an

- A. I/O Devices
- B. Interface
- C. Object
- D. Information

ANSWER:C

**68.** With Microkernel architecture it is possible to handle hardware interrupts as

- A. Application
- B. Information
- C. Data
- D. Message

ANSWER:D

**69.** Process or task in Linux is represented by a

- A. task done
- B. task construct
- C. task build
- D. task struct

ANSWER:D

**70.** Windows processes are implemented as

- A. Objectives
- B. Programs
- C. Modems
- D. Models

ANSWER:A

**71.** Kernel threads are directly supported by

- A. Register
- B. Application
- C. Operating system
- D. Memory

ANSWER:C

**72.** Motivation for converting interrupts to threads is to reduce

- A. Overcome
- B. Overhead
- C. Overload
- D. Over access

ANSWER:B

**73.** Process image is collection of

- A. Images
- B. Graphics
- C. Programs
- D. None

ANSWER:C

**74.** Kernel dispatcher keep track of all ready

- A. Threads
- B. Systems
- C. Registers
- D. Buffers

ANSWER:A

**75.** A process can map any of its pages into address space of another

- A. Process
- B. Program
- C. System
- D. Application

ANSWE:A

**76.** In a pure User Level Thread facility all of work of thread management is done by the

- A. Application
- B. Process
- C. Program
- D. System

ANSWER:A

**77.** Process execution is execution of

- A. Blocks
- B. Paths
- C. Statements
- D. Programs

ANSWER:B

**78.** Traditionally computer has been viewed as a sequential

- A. Data
- B. Machine
- C. Program
- D. Process

ANSWER:B

**79.** Port identities and capabilities are maintained by

- A. Object Oriented Operating System
- B. Kernel Service
- C. Kernel

D. Microkernel

ANSWER:C

**80.** Which java feature is used to invoke a method on a remote object?

- A. Process Control Block (PCB)
- B. Remote Method Invocation (RMI)
- C. Remote access control Block
- D. Both a and b

ANSWER:B

**Total=30+80=110**

1. Whenever a process needs I/O to or from a disk it issues a \_\_\_\_\_

- a) system call to the CPU
- b) system call to the operating system
- c) a special procedure
- d) all of the mentioned

Answer: b

Explanation: None.

2. If a process needs I/O to or from a disk, and if the drive or controller is busy then

- a) the request will be placed in the queue of pending requests for that drive
- b) the request will not be processed and will be ignored completely
- c) the request will be not be placed
- d) none of the mentioned

Answer: a

Explanation: None.

3. Consider a disk queue with requests for I/O to blocks on cylinders.

98 183 37 122 14 124 65 67

Considering FCFS (first cum first served) scheduling, the total number of head movements is, if the disk head is initially at 53 is?

- a) 600
- b) 620
- c) 630
- d) 640

Answer: d

Explanation: None.

4. Consider a disk queue with requests for I/O to blocks on cylinders.

98 183 37 122 14 124 65 67

Considering SSTF (shortest seek time first) scheduling, the total number of head movements is, if the disk head is initially at 53 is?

- a) 224
- b) 236
- c) 245
- d) 240

Answer: b

Explanation: None.

5. Random access in magnetic tapes is \_\_\_\_\_ compared to magnetic disks.

- a) fast
- b) very fast
- c) slow
- d) very slow

Answer: d

Explanation: None.

6. Magnetic tape drives can write data at a speed \_\_\_\_\_ disk drives.

- a) much lesser than
- b) comparable to
- c) much faster than
- d) none of the mentioned

Answer: b

Explanation: None.

7. On media that use constant linear velocity (CLV), the \_\_\_\_\_ is uniform.

- a) density of bits on the disk
- b) density of bits per sector
- c) the density of bits per track
- d) none of the mentioned

Answer: c

Explanation: The farther a track is from the center of the disk.

8. SSTF algorithm, like SJF \_\_\_\_\_ of some requests.

- a) may cause starvation
- b) will cause starvation
- c) does not cause starvation
- d) causes aging

Answer: a

Explanation: None.

9. In the \_\_\_\_\_ algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.

- a) LOOK
- b) SCAN
- c) C-SCAN
- d) C-LOOK

Answer: b

Explanation: None.

10. In the \_\_\_\_\_ algorithm, the disk head moves from one end to the other, servicing requests along the way. When the head reaches the other end, it immediately returns to the beginning of the disk without servicing any requests on the return trip.

- a) LOOK
- b) SCAN
- c) C-SCAN
- d) C-LOOK

**Answer:** c

**Explanation:** None.

advertisement

11. In the \_\_\_\_\_ algorithm, the disk arm goes as far as the final request in each direction, then reverses direction immediately without going to the end of the disk.

- a) LOOK
- b) SCAN
- c) C-SCAN
- d) C-LOOK

[View Answer](#)

**Answer:** a

**Explanation:** None.

12. Which of the following is an example of Spooled Device?

- a) A graphic display device
- b) A line printer used to print the output of a number of jobs
- c) A terminal used to enter input data to a running program
- d) A secondary storage device in a virtual memory system

**Answer:** b

**Explanation:** A line printer used to print the output of a number of jobs

13. **Thrashing** occurs when\_\_\_\_\_

- a) CPU tends to execute a particular process and seeks for it's respective page
- b) IO demands a service
- c) Cache memory stores a page
- d) Any command runs

**Answer:** a

14. The following is not a layer of IO management module

- a) PIOCS (Physical Input Output Control System)
- b) LIOCS (Logical Input Output Control System)
- c) FS (File System)
- d) MCS (Management Control System)

**Answer:** (d).MCS (Management Control System)

15. If one or more devices use a common set of wires to communicate with the computer system, the connection is called \_\_\_\_\_

- a) CPU
- b) Monitor
- c) Wirefull
- d) Bus

**Answer:** (d).

16. A \_\_\_\_\_ a set of wires and a rigidly defined protocol that specifies a set of messages that can be sent on the wires.

- a) Port
- b) Node
- c) Bus
- d) None of above

**Answer:** (c).

17. When device A has a cable that plugs into device B, and device B has a cable that plugs into device C and device C plugs into a port on the computer, this arrangement is called a \_\_\_\_\_

- a) Port
- b) Daisy chain
- c) Bus
- d) Cable

**Answer:** (b).

18. The \_\_\_\_\_ present a uniform device-access interface to the I/O subsystem, much as system calls provide a standard interface between the application and the operating system.

- a) Devices
- b) Buses
- c) Device drivers
- d) I/O systems

**Answer:** c

19. How does the Hardware trigger an interrupt ?

- a) Sending signals to CPU through system bus
- b) Executing a special program called interrupt program
- c) Executing a special program called system program
- d) Executing a special operation called system call

**Answer:** (a).

20. Which operation is performed by an interrupt handler ?

- a) Saving the current state of the system
- b) Loading the interrupt handling code and executing it
- c) Once done handling, bringing back the system to the original state it was before the interrupt occurred
- d) All of these

**Answer:** (d).

21. Whenever a process needs I/O to or from a disk it issues a \_\_\_\_\_

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Explanation: As per Definition.

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- b) will cause starvation
- c) does not cause starvation
- d) causes aging

Answer: a

Explanation: As per Definition

29. In the \_\_\_\_\_ algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.

- a) LOOK
- b) SCAN
- c) C-SCAN
- d) C-LOOK

Answer: b

Explanation: As per Definition

30. In the \_\_\_\_\_ algorithm, the disk head moves from one end to the other, servicing requests along the way. When the head reaches the other end, it immediately returns to the beginning of the disk without servicing any requests on the return trip.

- a) LOOK
- b) SCAN
- c) C-SCAN
- d) C-LOOK

Answer: c

Explanation: As per Definition

31. In the \_\_\_\_\_ algorithm, the disk arm goes as far as the final request in each direction, then reverses direction immediately without going to the end of the disk.

- a) LOOK
- b) SCAN
- c) C-SCAN
- d) C-LOOK

Answer: a

Explanation: None.

32. \_\_\_\_\_ is a unique tag, usually a number identifies the file within the file system.

- a) File identifier
- b) File name
- c) File type
- d) None of the mentioned

Answer: a

Explanation: By Definition

33. To create a file \_\_\_\_\_

- a) allocate the space in file system
- b) make an entry for new file in directory
- c) allocate the space in file system & make an entry for new file in directory
- d) none of the mentioned

Answer: c

Explanation: By Definition

34. By using the specific system call, we can \_\_\_\_\_

- a) open the file
- b) read the file
- c) write into the file
- d) all of the mentioned

Answer: d

Explanation: By Definition

35. File type can be represented by \_\_\_\_\_

- a) file name
- b) file extension
- c) file identifier
- d) none of the mentioned

Answer: b

Explanation: By Definition

36. Which file is a sequence of bytes organized into blocks understandable by the system's linker?

- a) object file
- b) source file
- c) executable file
- d) text file

Answer: a

Explanation: By Definition

37. What is the mounting of file system?

- a) crating of a filesystem
- b) deleting a filesystem
- c) attaching portion of the file system into a directory structure
- d) removing the portion of the file system into a directory structure

Answer: c

Explanation: By Definition

38. Mapping of file is managed by \_\_\_\_\_

- a) file metadata
- b) page table
- c) virtual memory
- d) file system

Answer: a

Explanation: By Definition

39. Mapping of network file system protocol to local file system is done by \_\_\_\_\_

- a) network file system
- b) local file system
- c) volume manager
- d) remote mirror

Answer: a

Explanation: By Definition

40. Which one of the following explains the sequential file access method?

- a) random access according to the given byte number
- b) read bytes one at a time, in order
- c) read/write sequentially by record
- d) read/write randomly by record

Answer: b

Explanation: By Definition

41. When will file system fragmentation occur?

- a) unused space or single file are not contiguous
- b) used space is not contiguous
- c) unused space is non-contiguous
- d) multiple files are non-contiguous

Answer: a

Explanation: By Definition

## **SPOS MCQ Question Bank on UNIT-V**

1. CPU fetches the instruction from memory according to the value of:

- A. program counter
- B. status register
- C. instruction register
- D. program status word

Answer: Option A

Explanation:

None

2. A memory buffer used to accommodate a speed differential is called:

- A. stack pointer
- B. cache
- C. accumulator
- D. disk buffer

ANSWER: B

3. Which one of the following is the address generated by CPU?

- A. physical address
- B. absolute address
- C. logical address
- D. none of the mentioned

ANSWER:C

4. Run time mapping from virtual to physical address is done by:

- A. memory management unit
- B. CPU
- C. PCI
- D. none of the mentioned

ANSWER:A

5. Memory management technique in which system stores and retrieves data from secondary storage for use in main memory is called:

- A. fragmentation
- B. paging
- C. mapping
- D. none of the mentioned

ANSWER:B

6. Effective access time is directly proportional to:

- A. page-fault rate
- B. hit ratio
- C. memory access time
- D. none of the mentioned

ANSWER:B

7. In FIFO page replacement algorithm, when a page must be replaced:

- A. oldest page is chosen
- B. newest page is chosen
- C. random page is chosen
- D. none of the mentioned

**ANSWER:A**

8. Which algorithm chooses the page that has not been used for the longest period of time whenever the page required to be replaced?

- A. first in first out algorithm
- B. additional reference bit algorithm
- C. least recently used algorithm
- D. counting based page replacement algorithm

**ANSWER:A**

9. A process is thrashing if:

- A. it is spending more time paging than executing
- B. it is spending less time paging than executing
- C. page fault occurs
- D. swapping can not take place

**ANSWER:C**

10. Working set model for page replacement is based on the assumption of:

- A. modularity
- B. locality
- C. globalization
- D. random access

**ANSWER:A**

11. The operating system is :

- A. in the low memory
- B. in the high memory
- C. either a or b (depending on the location of interrupt vector)
- D. None of these

**ANSWER:C**

12. In contiguous memory allocation :

- A. each process is contained in a single contiguous section of memory
- B. all processes are contained in a single contiguous section of memory
- C. the memory space is contiguous
- D. None of these

**ANSWER:A**

13. The relocation register helps in :

- A. providing more address space to processes
- B. a different address space to processes
- C. to protect the address spaces of processes
- D. None of these

**ANSWER:C**

14. With relocation and limit registers, each logical address must be

- A. less than
  - B. equal to
  - C. greater than
  - D. None of these
- the limit register.

**ANSWER:A**

15. The operating system and the other processes are protected from being modified by an already running process because :

- A. they are in different memory spaces
- B. they are in different logical addresses
- C. they have a protection algorithm
- D. every address generated by the CPU is being checked against the relocation and limit registers

ANSWER:D

16. Transient operating system code is code that :

- A. is not easily accessible
- B. comes and goes as needed
- C. stays in the memory always
- D. never enters the memory space

ANSWER:B

17. Using transient code,

- A. increases
- B. decreases
- the size of the operating system during program execution.
- C. changes
- D. maintains

ANSWER:C

18. When memory is divided into several fixed sized partitions, each partition may contain

- A. exactly one process
- B. atleast one process
- C. multiple processes at once
- D. None of these

ANSWER:A

19. In fixed sized partition, the degree of multiprogramming is bounded by

- A. the number of partitions
- B. the CPU utilization
- C. the memory size
- D. All of these

ANSWER:A

20. The first fit, best fit and worst fit are strategies to select a

- A. process from a queue to put in memory
- B. processor to run the next process
- C. free hole from a set of available holes
- D. All of these

ANSWER:C

21. In internal fragmentation, memory is internal to a partition and :

- A. is being used
- B. is not being used
- C. is always used
- D. None of these

ANSWER:B

22. A solution to the problem of external fragmentation is :

- A. compaction

- B. larger memory space
- C. smaller memory space
- D. None of these

ANSWER:A

23. Another solution to the problem of external fragmentation problem is to :

- A. permit the logical address space of a process to be noncontiguous
- B. permit smaller processes to be allocated memory at last
- C. permit larger processes to be allocated memory at last
- D. All of these

ANSWER:A

24. If relocation is static and is done at assembly or load time, compaction

- A. cannot be done
- B. must be done
- C. must not be done
- D. can be done

.

ANSWER:A

25. The disadvantage of moving all process to one end of memory and all holes to the other direction,

producing one large hole of available memory is :

- A. the cost incurred
- B. the memory used
- C. the CPU used
- D. All of these

ANSWER:A

Answer D

26.

is generally faster than

- A. first fit, best fit, worst fit
- B. best fit, first fit, worst fit

and

- C. worst fit, best fit, first fit
- D. None of these

ANSWER:A

27. External fragmentation exists when :

- A. enough total memory exists to satisfy a request but it is not contiguous
- B. the total memory is insufficient to satisfy a request
- C. a request cannot be satisfied even when the total memory is free
- D. None of these

ANSWER:A

28. External fragmentation will not occur when :

- A. first fit is used
- B. best fit is used
- C. worst fit is used
- D. no matter which algorithm is used, it will always occur

ANSWER:D

29. Sometimes the overhead of keeping track of a hole might be :

- A. larger than the memory
- B. larger than the hole itself
- C. very small
- D. All of these

**ANSWER:B**

30. When the memory allocated to a process is slightly larger than the process, then :

- A. internal fragmentation occurs
- B. external fragmentation occurs
- C. both a and b
- D. neither a nor b

**ANSWER:A**

31. Because of virtual memory, the memory can be shared among:

- A. processes
- B. threads
- C. instructions
- D. none of the mentioned

**ANSWER:A**

32.

is the concept in which a process is copied into main memory from the secondary memory according to the requirement.

- A. Paging
- B. Demand paging
- C. Segmentation
- D. Swapping

**ANSWER:B**

33. The pager concerns with the:

- A. individual page of a process
- B. entire process
- C. entire thread
- D. first page of a process

**ANSWER:A**

34. Swap space exists in:

- A. primary memory
- B. secondary memory
- C. CPU
- D. none of the mentioned

**ANSWER:B**

35. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then?

- A. segmentation fault occurs
- B. fatal error occurs
- C. page fault occurs
- D. no error occurs

**ANSWER:C**

36. Effective access time is directly proportional to:

- A. page-fault rate
- B. hit ratio
- C. memory access time
- D. none of the mentioned

**ANSWER:A**

37. In FIFO page replacement algorithm, when a page must be replaced:

- A. oldest page is chosen
- B. newest page is chosen

- C. random page is chosen
- D. none of the mentioned

ANSWER:A

38. Which algorithm chooses the page that has not been used for the longest period of time whenever the page required to be replaced?

- A. first in first out algorithm
- B. additional reference bit algorithm
- C. least recently used algorithm
- D. counting based page replacement algorithm

ANSWER:C

39. A process is thrashing if:

- A. it is spending more time paging than executing
- B. it is spending less time paging than executing
- C. page fault occurs
- D. swapping can not take place

ANSWER:A

40. Working set model for page replacement is based on the assumption of:

- A. modularity
- B. locality
- C. globalization
- D. random access

ANSWER:B

41. Destruction of files for malicious reasons such as access by fraudulent people is classified as being

- A. modified
- B. accessed
- C. destroyed
- D. unauthorized access

ANSWER:A

42.. In files, if order of operation on two or more files are similar, then operation will be

- A.complex
- B.simple
- C. sequential
- D. combinational

ANSWER:B

43. Search in which record is checked and read for desired items in file linearly is classified as

- A. combinational search
- B. linear research
- C. linear search
- D. quadratic search

ANSWER:C

4. Field which is used to identify specific record and can't be duplicated is classified as  
A. key field  
B. duplicate field  
C. copied field  
D. original field

Answer A

45. Access in which records are accessed from and inserted into file, is classified as  
A. direct access  
B. sequential access  
C. random access  
D. duplicate access

ANSWER:B

46. Smallest piece of data that could be deal separately is classified as  
A. file record  
B. item  
C. data column  
D. bug

Answer B

47. File code which engineers add to file name and limit access to few users is called  
A. limited code  
B. access code  
C. code protection  
D. physical code

Answer B

48. Large collection of structured data that can be used in different applications is called  
A. database management  
B. management system  
C. database  
D. data storage system

Answer C

49. Preparation of disc for subsequent file storage is classified as  
A. disc format  
B. disc address  
C. disc footer  
D. disc header

Answer A

50. In microcomputers files, inquiry programs used for simple purposes are classified as  
A. storage package  
B. database package  
C. organized package  
D. hardware package

Answer B

51. In computer programming, particular way by which data records are arranged into a specific manner is considered as  
A. organization

B. reorganized  
C. managing

D. record storage

ANSWER:A

52. Arrangement of data into a specific order is classified as

A. sorting

B. ordering

C. learning

D. inquiring

Answer A

53. File which is automatically updated when needed is classified as

A. particular file

B. reference file

C. master file

D. application file

Answer C

54. All keys which are used to identify particular item must be

A. same

B. different

C. lengthy

D. short

ANSWER:B

55. Program packages that allows user to search items in a file or some combination of selected items are classified as

A. file search

B. file inquiry

C. linear file search

D. quadratic linear search

Answer B

56. Programs written easily by programmers in a

A. direct file

B. order file

C. sequence file

D. timed file

Answer C

57. Kind of exchange in which number is compared to next item for possible exchange is called

A. exchange sort

B. selection sort

C. bubble sort

D. possible sort

Answer C

58. Operations performed on serial file are in order would be much

A. easier

B. complex

C. differential

D. sequential

Answer A

59. In user facilities, copying of all records onto a main store from permanent store is considered as

- A. delete file
- B. rename file
- C. save file
- D. load file

Answer D

60. In sequential files update, record orders of transaction file and master file must be

- A. safe
- B. same
- C. different
- D. descending order

ANSWER:B

61. When data files are updated, new file is called

- A. father file
- B. son file
- C. grandfather file
- D. grandson file

ANSWER:B

62. Ability to obtain data from a storage device by going directly to where it is physically located on device rather than by having to sequentially look for data at one physical location after another is called

- A. sequential access
- B. timed access
- C. direct access
- D. variable access

ANSWER:C

63. Level of generations that are generally kept are

- A. two
- B. three
- C. four
- D. five

ANSWER:B

64. Straightforward allocation of storage space is consist of fixed length

- A. item
- B. advantage
- C. previous records
- D. disadvantage

ANSWER:B

25. Use of passwords and access codes to safeguard files is classified as

- A. software safeguards
- B. physical safeguards
- C. generation files
- D. locked files

Answer A

26. Selection of files are easy in

- A. direct access
- B. sequential access
- C. timed access
- D. random access

Answer A

27. Items in key field of record is classified as

- A. duplicate
- B. key
- C. copied column
- D. copied row

Answer B

28.. Method of scanning of files for a desired record is classified as

- A. linear research
- B. quadratic search
- C. search
- D. non linear research

ANSWER:C

29. If master and transaction file have keys in same order then it takes

- A. less time
- B. more time
- C. many hours
- D. many days

ANSWER:A

30. Organized collection of records is considered as

- A. record
- B. file
- C. rows
- D. column

ANSWER:B

31. Label which contains file name is classified as

- A.header label
- B. trailer label
- C.end of file marker
- D. start of file marker

ANSWER:A

32. File used to update information in computer's master file is classified as

- A. transaction file
- B. direct file
- C. order file
- D. sequence file

ANSWER:AAAnswer A

33. Files to be accessed from punched cards and paper tape is classified as

- A.timed access file

- B. random access file
- C. direct access file
- D. sequential access file

Answer D

34. Method by which program reads from files and writes data into file is considered as

- A.access
- B. organization
- C. recording
- D. selection

Answer A

35. Type of field in which reserved set of characters are not determined is classified as

- A.stable length
- B. file length
- C. variable length
- D. fixed length

ANSWER:C

36.Type of access in which records are chosen in an order is classified as

- A.timed access file
- B. random access file
- C. direct access file
- D. sequential access file

ANSWER:C

37. Process of creating copy of stored data onto another disc is termed as creating

- A.locked files
- B. backup files
- C. modified file
- D. destroyed file

ANSWER:B

38. Directory which consists of list of files is classified as

- A. list directory
- B. directory part
- C. catalogue
- D. disc directory

ANSWER:C

39. Records would not be arranged in particular order before creating it is classified as

- A. direct access file
- B. sequence access file
- C. timed access file
- D. random access file

ANSWER:A

40. File which contains list of other file names is known as

- A. path file
- B. batched file
- C. directory
- D. path name

ANSWER:C

1. With deadlock detection, requested resources are granted to

- A. Resources
- B. Programs
- C. Processes
- D. Users

ANSWER:C

2. All deadlocks involve conflicting needs for

- A. Resources
- B. Users
- C. Computers
- D. Programs

ANSWER:A

3. Fastest form of inter process communication provided in UNIX is

- A. Virtual Memory
- B. Memory
- C. Shared Memory
- D. Main Memory

Answer C

4. Deadlock prevention strategies are very

- A. Conservative
- B. Straight
- C. Complex
- D. Simple

ANSWER:A

5. A consumable resource is one that can be

- A. Access
- B. Count
- C. Created
- D. Control

ANSWER:C

6. A signal is a software mechanism that informs a

- A. Processor
- B. User
- C. Program
- D. Process

ANSWER:D

7. No preemption means that a resource is released as

- A. Terminated
- B. Non Voluntarily
- C. Voluntarily
- D. None

ANSWER:C

8. Deadlock avoidance requires knowledge of future

- A. Process
- B. Resource
- C. Program
- D. Application

ANSWER:A

9. Circular wait condition can be prevented by defining a linear ordering of

- A. Program Type
- B. User Type
- C. Resource Type
- D. Process Type

ANSWER:C

10. An unsafe state is of course a state that is not

- A. Require
- B. Safe
- C. Run
- D. Control

ANSWER:B

11. Linux includes all of concurrency mechanism found in other

- A. UNIX System
- b. Linux System
- C. Windows System
- D. None

Answer A

12. Dining philosophers problem can be seen as representative of

- A. Users
- B. Problems
- C. Process
- D. Application

Answer B

13. A direct method of deadlock prevention is to prevent occurrence of a circular

- A. Data
- B. Process
- C. Movement
- D. Wait

Answer D

14. To solve dining philosophers, monitor consist of two

- A. Users
- B. Programs
- C. Applications
- D. Procedures

Answer D

15. Conditions for deadlock, only one process may use a resource at a

- A. Program
- B. Time
- C. Process

D. None

Answer B

16. A useful tool in characterizing and allocating of resources to process is the

- A. User Allocation Graph
- B. Time Allocation Graph
- C. Resource Allocation Graph
- D. Location Allocation Graph

Answer C

17. UNIX provides a variety of mechanisms for inter processor

- A. Information
- B. Communication
- C. Process
- D. Resource

Answer B

18. Deadlock involves reusable

- A. Resources
- B. Users
- C. Time
- D. Cost

Answer A

19. Once deadlock has been detected, some strategy is needed for

- A. Control
- B. Access
- C. Recovery
- D. None

Answer C

20. Common technique used for protecting a critical section in Linux is the

- A. Lock Step
- B. Program lock
- C. Spinlock
- D. None

ANSWER:C

Answer 21. For effective operating system, when to check for deadlock?

- A. every time a resource request is made
- B. at fixed time intervals
- C. both (a) and (b)
- D. none of the mentioned

ANSWER:C

24. Which To The avoid number one of of mentioned the resources following a visual by ( a mathematical process : ) way to determine the deadlock occurrence?

25. aging inversion technique can requested be is used none of deadlock:

- A. must always be less than the total number of resources available in the system
- B. must always be equal to the total number of resources available in the system
- C. must not exceed the total number of resources available in the system
- D. must exceed the total number of resources available in the system

ANSWER:C

26. The request and release of resources are

- A. command line statements
- B. interrupts
- C. system calls
- D. special programs

ANSWER:C

27. Multithreaded programs are :

- A. lesser prone to deadlocks
- B. more prone to deadlocks
- C. not at all prone to deadlocks
- D. None of these

ANSWER:B

28. For Mutual exclusion to prevail in the system :

- A. at least one resource must be held in a non sharable mode
- B. the processor must be a uniprocessor rather than a multiprocessor
- C. there must be at least one resource in a sharable mode
- D. All of these

ANSWER:A

29. For a Hold and wait condition to prevail :

- A. A process must be not be holding a resource, but waiting for one to be freed, and then request to acquire it
- B. A process must be holding at least one resource and waiting to acquire additional resources that are being held by other processes
- C. A process must hold at least one resource and not be waiting to acquire additional resources
- D. None of these

ANSWER:B

30. Deadlock prevention is a set of methods :

- A. to ensure that at least one of the necessary conditions cannot hold
- B. to ensure that all of the necessary conditions do not hold
- C. to decide if the requested resources for a process have to be given or not
- D. to recover from a deadlock
- 

ANSWER:A

31. For non sharable resources like a printer, mutual exclusion :

- A. must exist
- B. must not exist
- C. may exist
- D. None of these

ANSWER:A

32. For sharable resources, mutual exclusion :

- A. is required
- B. is not required
- C. None of these

ANSWER:B

33. To ensure that the hold and wait condition never occurs in the system, it must be ensured that :

- A. whenever a resource is requested by a process, it is not holding any other resources
- B. each process must request and be allocated all its resources before it begins its execution
- C. a process can request resources only when it has none
- D. All of these

**ANSWER:D**

34. The disadvantage of a process being allocated all its resources before beginning its execution is :

- A. Low CPU utilization
- B. Low resource utilization
- C. Very high resource utilization
- D. None of these

**ANSWER:B**

35. To ensure no preemption, if a process is holding some resources and requests another resource that

cannot be immediately allocated to it :

- A. then the process waits for the resources be allocated to it
- B. the process keeps sending requests until the resource is allocated to it
- C. the process resumes execution without the resource being allocated to it
- D. then all resources currently being held are preempted

**ANSWER:D**

36. What is the reusable resource?

- A. that can be used by one process at a time and is not depleted by that use
- B. that can be used by more than one process at a time
- C. that can be shared between various threads
- D. none of the mentioned

**ANSWER:A**

37. Which of the following condition is required for deadlock to be possible?

- A. mutual exclusion
- B. a process may hold allocated resources while awaiting assignment of other resources
- C. no resource can be forcibly removed from a process holding it
- D. all of the mentioned

**ANSWER:D**

38. A system is in the safe state if:

- A. the system can allocate resources to each process in some order and still avoid a deadlock
- B. there exist a safe sequence
- C. both (a) and (b)
- D. none of the mentioned

**ANSWER:C**

39. The circular wait condition can be prevented by:

- A. defining a linear ordering of resource types
- B. using thread
- C. using pipes
- D. all of the mentioned

**ANSWER:A**

40. Which one of the following is the deadlock avoidance algorithm?

- A. banker's algorithm
- B. round-robin algorithm
- C. elevator algorithm
- D. karn's algorithm

**ANSWER:A**

## SPOS Question Bank on unit-IV

1. Dual mode of operating system has

- A. 1 mode
- B. 2 modes
- C. 3 modes
- D. 4 modes

ANSWER: B

2. Multi-processor system gives a

- A. small system
- B. tightly coupled system
- C. loosely coupled system
- D. both a and b

Answer B

3. Logical extension of multiprogramming operating system is

- A. time sharing
- B. multi-tasking
- C. single programming
- D. both a and b

Answer D

4. Multiprocessor system have advantage of

- A. Increased Throughput
- B. Expensive hardware
- C. operating system
- D. both a and b

ANSWER:A

5. Scheduling of threads are done by

- A. input
- B. output
- C. operating system
- D. memory

ANSWER:C

6. Multiprogramming of computer system increases

- A. memory
- B. storage

**C. CPU utilization**

OM PHAT SWN'

**D.** cost

ANSWER:

C

7. Another type of multiple-CPU system is the

- A.** mini Computer
- B.** Super Computer
- C.** Clustered System
- D.** both a and b

ANSWER:

C

8. Interrupt table of pointers having addresses for each interrupt is located at

- A.** high memory
- B.** low memory
- C.** mid memory
- D.** both a and b

ANSWER:

B

9. Example of open source operating system is

- A.** UNIX
- B.** Linux
- C.** windows
- D.** both a and b

ANSWER:

D

10. Main memory of computer system is also called

- A.** non volatile
- B.** volatile
- C.** reserved
- D.** large

ANSWER: B

11. Controller of computer system transfers data from device to

- A.** buffers
- B.** cache
- C.** registers
- D.** in  
dexes

ANSWER:

A

**12.** When many users accesses mainframes, this approach is called as

- A.** resource allocation
- B.** word processors
- C.** dedicated resources
- D.** interface

ANSWER: A

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**13.** Accessing same data from storage of computer system is provided by

- A.** serial clusters
- B.** parallel clusters
- C.** Beowulf clusters
- D.** both a and b

ANSWER:

B

**14.** To start an I/O operation device driver loads appropriate register into?

- A.** memory
- B.** Secondary storage
- C.** Device Controller
- D.** Ar

rays

ANSWER:

C

**15.** Symmetric multiprocessing architecture of computer system uses shared

- A.** bus
- B.** memory
- C.** processors

- D.** both a and

b ANSWER: D

**16.** In asymmetric clustering other machines perform operations while one machine is in

- A.** hot standby mode
- B.** standby mode
- C.** reset mode
- D.** undefined mode

ANSWER: A

A

**17.** Ability to continuously providing service proportional to level of surviving hardware

- A.** graceful upgradation
- B.** degradation
- C.** upgradation
- D.** graceful

degradation

ANSWER: D

**18.** Secondary memory of computer system is also called

- A. non volatile
- B. volatile
- C. reserved
- D. small

ANSWER: A

**19.** Environment in which programs of computer system are executed is:

- A.** operating system
- B.** nodes
- C.** clustered system
- D.** both a and b

ANSWER:

A

**20.** One word memory storage is collection of

- A.** 2 bytes
- B.** 4 bytes
- C.** 7 bytes
- D.** 8

bytes

ANSWER:

B

**21.** Each user of computer system that uses computer services has at least

- A.** 1 program
- B.** 2 programs
- C.** 3 programs
- D.** 4 programs

ANSWER:

A

**22.** Clusters of computer system can be used more efficiently using

- A.** serialization
- B.** parallelization
- C.** LAN
- D.** WAN

ANSWER: B

**23.** A properly designed operating system must ensure that an incorrect (or malicious) program cannot cause other programs to execute

- A.** incorrectly
- B.** Correctly
- C.** both a and b
- D.** None

ANSWER: A

**24.** Table of pointers for interrupt to be executed contains the

- A.** interrupts
- B.** programs
- C.** addresses
- D.** compilers

ANSWER: C

**25.** User view of system depends upon the

- A.** CPU
- B.** software
- C.** hardware
- D.** interface

ANSWER: D

**26.** Memories are normally classified according to their

- A.** speed
- B.** cost
- C.** indexes
- D.** both a and b

ANSWER:

D

**27.** SCSI system is abbreviation of the

- A.** small common-system interface
- B.** small common-system interaction
- C.** small computer-system interface
- D.** small computer-system interaction

ANSWER: C

**28.** One megabyte memory storage in form of bytes is equal to

- A.** 1024 bytes

- B.**  $1024^2$  bytes
- C.**  $1024^3$  bytes
- D.  $1024^4$  bytes

ANSWER: B

**29.** Multi-processing systems of computer system are of

- A.** 2 types
- B.** 3 types
- C.** 4 types
- D.** 5 types

ANSWER: A

**30.** Clustered computer systems are normally linked via

- A.** LAN
- B.** WAN

- C. PAN
- D. TAN

ANSWER: A

31. Kernel mode of operating system runs when mode bit is

- A. 1
- B. 0
- C. x
- D. undefined

ANSWER:

B

32. Kernel mode of operating system is also called

- A. user mode
- B. system mode
- C. supervisor mode
- D. both a and b

ANSWER:

C

33. Multi-processor systems of computer system has advantage of

- A. cost
- B. reliability
- C. uncertainty
- D. scalability

ANSWER: B

34. Time sharing systems of computer system have

- A. clusters
- B. nodes
- C. file system
- D. both a and b

ANSWER:C

35. One megabyte memory storage in form of bytes is equal to

- A. 1024 bytes
- B. 1024 kilo bytes
- C. 1056 bytes

**D.** 1058 kilo  
bytes  
ANSWER: B

**36.** Privileged mode of operating system mode is a

**A.** user code

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- B.** kernel mode
- C.** system mode
- D.** both b and c

ANSWER:

B

**37.** Example of bug in one program of operating system effects others in

- A.** zero error
- B.** infinite loop
- C.** invalid memory access
- D.** both a and b

ANSWER:

B

**38.** Master slave relationship in computer system is used by

- A.** symmetric multiprocessor
- B.** asymmetric multiprocessor
- C.** symmetric multiprocessing
- D.** asymmetric  
multiprocessing

ANSWER: D

**39.** Beowulf clusters of computer system uses

- A.** close source softwares
- B.** open source softwares
- C.** dedicated softwares
- D.** both a and b

ANSWER:

B

**40.** In non-multiprogrammed system Central Processing Unit will

- A.** sit idle
- B.** perform well
- C.** cost high
- D.** cost low

ANSWER: B

**MCQ.** When a thread needs to wait for an event it will

- A.** Block
- B.** Execute
- C.** Terminate
- D.** Update

ANSWER:A

**MCQ.** In a pure Kernel Level Thread facility all of work of thread management is done by the

- A. Application
- B. Program
- C. Kernel
- D. Threads

ANSWER:C

**MCQ.** Microkernel design imposes a uniform

- A. Process
- B. Processor
- C. Interface
- D. System

ANSWER:C

**MCQ.** Microkernel architecture facilitates

- A. Functionality
- B. Extensibility
- C. Reliability
- D. Portability

ANSWER:B

**MCQ.** Asynchronous elements in program can be implemented through

- A. Bugs
- B. Threads
- C. Programs
- D. Security Policy

ANSWER:B

**MCQ.** Unit of dispatching is usually referred as

- A. Multiprogramming
- B. Security Policy
- C. Problem
- D. Thread

ANSWER:D

**MCQ.** A single machine instruction can controls simultaneous execution of a number processing elements on

- A. Lockstep Basis
- B. Open Step Basis
- C. Early Basis
- D. None

ANSWER:A

**MCQ.** Owner of an address space can grant a number of its

- A. Modules
- B. Pages
- C. Devices
- D. Computers

ANSWER:B

**MCQ.** Microkernel lends itself to

- A. Computers
- B. Systems
- C. Distributed Systems
- D. Applications

ANSWER:C

**MCQ.** Microkernel supports

- A. Flexibility
- B. Reliability
- C. Accessible
- D. Rigid

ANSWER:A

**MCQ.** In Many-to-One multithreading model many user level threads are attached to

- A. One register
- B. operating system
- C. One kernel thread
- D. other threads

ANSWER:C

**MCQ.** Programs involve a variety of activities is easier to design and implement using

- A. Programs
- B. Information
- C. Data
- D. Threads

ANSWER:D

**MCQ.** Multiple threads within same process may be allocated to separate

- A. Applications
- B. Programs
- C. Processors
- D. Processes

ANSWER:C

**MCQ.** A lightweight process (LWP) can be viewed as a mapping between ULTs and

- A. Kernel Threads
- B. UNIX Thread
- C. Linux Threads
- D. WindowVista Threads

ANSWER:A

**MCQ.** Modular design helps to enhance

- A. Functionality
- B. Reliability
- C. Portability
- D. Flexibility

ANSWER:B

**MCQ.** Microkernel is responsible for mapping each virtual

- A. Module
- B. I/O Devices
- C. Memory
- D. Page

ANSWER:D

**MCQ.** Thread processor affinity is set of

- A. Processes
- B. Processors
- C. Programs
- D. Applications

ANSWER:B

**MCQ.** In UNIX, thread is

- A. Runnable
- B. Executing
- C. Updated

D. Access  
ANSWER:A

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**MCQ.** When a process is spawned, a thread for that process is also

- A. Complete
- B. Spawned
- C. Closed
- D. Update

ANSWER:B

**MCQ.** A sequence of data is transmitted to a set of

- A. Devices
- B. Resources
- C. Computers
- D. Processors

ANSWER:D

**MCQ.** A set of processors simultaneously execute different instructions on different

- A. Buffers
- B. Data Set
- C. Buses
- D. Registers

ANSWER:B

**MCQ.** A new process is created in Linux by copying the

- A. Address
- B. ID
- C. Object
- D. Attributes

ANSWER:D

**MCQ.** Multithreading refers to ability of an operating system to support multiple

- A. Execution
- B. Updating
- C. Completion
- D. None

ANSWER:A

**MCQ.** A microkernel architecture works well in context of an

- A. Object Oriented Operating System
- B. Internal device
- C. Interface
- D. Attractive Feature

ANSWER:A

**MCQ.** When a new process is created in Win32 new process inherits many of its

- A. Classes
- B. Objects
- C. Parent Attributes
- D. Functions

ANSWER:C

**MCQ.** A single processor executes a single instruction stream to operate on data stored in a single

- A. Computer
- B. System
- C. Memory
- D. Device

ANSWER:C

**MCQ.** Each windows process is represented by an

- A. I/O Devices
- B. Interface
- C. Object
- D. Information

ANSWER:C

**MCQ.** With Microkernel architecture it is possible to handle hardware interrupts as

- A. Application
- B. Information
- C. Data
- D. Message

ANSWER:D

**MCQ.** Process or task in Linux is represented by a

- A. task done
- B. task construct
- C. task build
- D. task struct

ANSWER:D

**MCQ.** Windows processes are implemented as

- A. Objectives
- B. Programs
- C. Modems
- D. Models

ANSWER:A

**MCQ.** Kernel threads are directly supported by

- A. Register
- B. Application
- C. Operating system
- D. Memory

ANSWER:C

**MCQ.** Motivation for converting interrupts to threads is to reduce

- A. Overcome
- B. Overhead
- C. Overload
- D. Over access

ANSWER:B

**MCQ.** Process image is collection of

- A. Images
- B. Graphics
- C. Programs
- D. None

ANSWER:C

**MCQ.** Kernel dispatcher keep track of all ready

- A. Threads
- B. Systems
- C. Registers
- D. Buffers

ANSWER:A

**MCQ.** A process can map any of its pages into address space of another

- A. Process
- B. Program
- C. System
- D. Application

ANSWE:A

**MCQ.** In a pure User Level Thread facility all of work of thread management is done by the

- A. Application
- B. Process
- C. Program
- D. System

ANSWER:A

**MCQ.** Process execution is execution of

- A. Blocks
- B. Paths
- C. Statements
- D. Programs

ANSWER:B

**MCQ.** Traditionally computer has been viewed as a sequential

- A. Data
- B. Machine
- C. Program
- D. Process

ANSWER:B

**MCQ.** Port identities and capabilities are maintained by

- A. Object Oriented Operating System
- B. Kernel Service
- C. Kernel
- D. Microkernel

ANSWER:C

**MCQ.** Which java feature is used to invoke a method on a remote object?

- A. Process Control Block (PCB)
- B. Remote Method Invocation (RMI)
- C. Remote access control Block
- D. both a and

ANSWER:B

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## MCQ Question Bank for SPOS Unit-1

**1.** In a two pass assembler the object code generation is done during the ?

- a. Second pass
- b. First pass
- c. Zeroeth pass
- d. Not done by assembler

Answer:(a).Second pass

**2.** Which of the following is not a type of assembler ?

- a. one pass
- b. two pass
- c. three pass
- d. load and go

Answer:(c).three pass

In a two pass assembler, adding literals to literal table and address resolution of local symbols

**3.** are done using ?

- a. First pass and second respectively
- b. Both second pass
- c. Second pass and first respectively
- d. Both first pass

Answer:(d).Both first pass

**4.** In a two pass assembler the pseudo code EQU is to be evaluated during ?

- a. Pass 1
- b. Pass 2
- c. not evaluated by the assembler

- d.** None of above

Answer:(a).Pass 1

Which of the following system program foregoes the production of object code to generate absolute machine code and load it into the physical main storage location from which it will be executed immediately upon completion of the assembly ?

- a.** Macro processor
- b.** Load and go assembler
- c.** Two pass assembler
- d.** Compiler

Answer:(b).Load and go assembler

**6.** Translator for low level programming language were termed as

- a.** Assembler
- b.** Compiler
- c.** Linker
- d.** Loader

Answer:(a).Assembler

**7.** An assembler is

- a.** programming language dependant
- b.** syntax dependant
- c.** machine dependant
- d.** data dependant

Answer:(c).machine dependant

**8.** An imperative statement

- a.** Reserves areas of memory and associates names with them
- b.** Indicates an action to be performed during execution of assembled program

c. Indicates an action to be performed during optimization

d. None of the above

Answer:(b).Indicates an action to be performed during execution of assembled program

**9.** In a two-pass assembler, the task of the Pass II is to

- a. separate the symbol, mnemonic opcode and operand fields.
- b. build the symbol table.
- c. construct intermediate code.
- d. synthesize the target program.

Answer:(d).synthesize the target program.

**10.** TII stands for

- a. Table of incomplete instructions
- b. Table of information instructions
- c. Translation of instructions information
- d. Translation of information instruction

Answer:(a).Table of incomplete instructions

**11.** Assembler is a machine dependent, because of?

- a. Macro definition table(MDT)
- b. Pseudo operation table(POT)
- c. Argument list array(ALA)
- d. Mnemonics operation table(MOT)

Answer: (d).Mnemonics operation table(MOT)

**12.** Assembler is ?

- a. A program that places programs into memory and prepares them for execution
- b. A program that automates the translation of assembly language into machine language

A program that accepts a program written in high level language and produces an object

- c. program

- d. Is a program that appears to execute a source program as if it were machine language

Answer:(b).A program that automate the translation of assembly language into machine language

**13.** Forward reference table(FRT) is arranged like ?

- a. Stack
- b. Queue
- c. Linked list
- d. Double linked list

Answer:(c).Linked list

**14.** Assembler is a program that

- a. places programs into memory and prepares then for execution
- b. automates the translation of assemble language into machine language
- c. accepts a program written in a high level language and produces an object program
- d. appears to execute a resource as if it were machine language

Answer:(b).automates the translation of assemble language into machine language

**15.** A single two pass assembler does which of the following in the first pass

- a. It allicates space for the literals
- b. It computes the total length of the program
- c. It builds the symbol table for the symbols and their values
- d. all of the above

Answer:(d).all of the above

**16.** Which of the following is not a function of pass1 of an assembler

- a. generate data

- b.** keep track of LC
- c.** remember literals
- d.** remember values of symbols until pass 2

Answer:(a).generate data

**17.** An Assembler converts

- a.** machine code to mnemonics
- b.** high level language to assembly level
- c.** assembly language to machine language
- d.** all of the above

Answer:(c).assembly language to machine language

**18.** \_\_\_\_\_ converts the programs written in assembly language into machine instructions .

- a.** Machine compiler
- b.** Interpreter
- c.** Assembler
- d.** Converter

Answer:(c).Assembler

**19.** The instructions like MOV or ADD are called as \_\_\_\_\_ .

- a.** OP-Code
- b.** Operators
- c.** Commands
- d.** None of the above

Answer:(a).OP-Code

**20.** Instructions which wont appear in the object program are called as \_\_\_\_\_ .

- a.** Redundant instructions

- b. Exceptions
- c. Comments
- d. Assembler Directives

Answer:(d).Assembler Directives

**21.** The assembler stores all the names and their corresponding values in \_\_\_\_\_ .

- a. Special purpose Register
- b. Symbol Table
- c. Value map Set
- d. None of the above

Answer:(b).Symbol Table

**22.** When dealing with the branching code, the assembler

- a. Replaces the target with its address
- b. Does not replace until the test condition is satisfied
- c. Finds the Branch offset and replaces the Branch target with it
- d. Replaces the target with the value specified by the DATAWORD directive

Answer:(c).Finds the Branch offset and replaces the Branch target with it

**23.** The last statement of the source program should be \_\_\_\_\_ .

- a. Stop
- b. Return
- c. OP
- d. End

Answer:(d).End

**24.** \_\_\_\_\_ directive specifies the end of execution of a program .

- a. End
- b. Return
- c. Stop
- d. Terminate

Answer:(b).Return

**25.** In a two-pass assembler, the task of the Pass II is to

- a. separate the symbol, mnemonic opcode and operand fields.
- b. build the symbol table.
- c. construct intermediate code.
- d. synthesize the target program.

Answer:(d).synthesize the target program.

**26.** Address symbol table is generated by the

- a. memory management software
- b. assembler
- c. match logic of associative memory
- d. generated by operating system

Answer:(b).assembler

**27.** Which of these features of assembler are Machine-Dependent ?

- a. Instruction formats
- b. Addressing modes
- c. Program relocation
- d. All of the mentioned

Answer:(d).All of the mentioned

**28.** In a two pass assembler pseudo code, equ is to be evaluated during

- a. pass 1
- b. pass 2
- c. not evaluated by the assembler
- d. none of these

Answer:(a).pass 1

**29.** The translator used by second generation languages is?

- a. assembler
- b. interpreter
- c. compiler
- d. linker

Answer:(a).assembler

**30.** A simple two-pass assembler does which of the following in the first pass ?

- a. It allocates space for the literals
- b. It computes the total length of the program
- c. It builds the symbol table for the symbols and their values
- d. All of these

Answer:(d).All of these

**31.** In a single pass assembler, most of the forward references can be avoided by putting the restriction

- a. that the data segment must be defined after the code segment
- b. on the number of strings/lifereacts
- c. on unconditional rump
- d. None of these

Answer:(a).that the data segment must be defined after the code segment

32. Which of the following translation program converts assembly language programs to object program

- a. Loader
- b. Compiler
- c. Assembler
- d. Macroprocessor

Answer:(c).Assembler

33. Loop is a collection of nodes that is

- a. strongly connected and has a unique entry
- b. loosely connected and has a unique entry
- c. strongly connected
- d. none of these

Answer:(a).strongly connected and has a unique entry

34. Pass 2 -

- a. perform processing of assembler directives not done during pass 1
- b. write the object program and assembly listing
- c. assemble instruction and generate data
- d. all of these

Answer:(d).all of these

35. Pass I -

- a. save the values assigned to all labels for use in pass 2
- b. perform some processing of assembler directives
- c. assign address to all statements in the program
- d. all of these

Answer:(d).all of these

Which of the following system program forgoes the production of object code to generate absolute machine code and load it into the physical main storage location from which it will be executed immediately upon completion of the assembly?

- a. compiler
- b. macroprocessor
- c. two pass assembler
- d. load-and-go assembler

Answer:(d).load-and-go assembler

37. In a two-pass assembler, symbol table is

- a. Generated in first pass
- b. Generated in second pass
- c. Not generated at all
- d. Generated and used only in second pass

Answer:(c).Not generated at all

Match the following:

- (a) Forward Reference Table (i) Assembler directive
- (b) Mnemonic Table (ii) Uses array data structure
- 38. (c) Segment Register Table (iii) Contains machine OP code
- (d) EQU (iv) Uses linked list data structure

code:

- (a) (b) (c) (d)

- a. (ii)(iii)(iv)(i)

**b.** (iii)(iv)(ii)(i)

**c.** (iv)(i)(iii)(ii)

**d.** (iv)(iii)(ii)(i)

Answer:(d).(iv)(iii)(ii)(i)

**39.** The translator which performs macro calls expansion is called :

**a.** Macro processor

**b.** Micro pre-processor

**c.** Macro pre-processor

**d.** Dynamic linker

Answer:(c).Macro pre-processor

**40.** ‘Macro’ in an assembly level program is .....

**a.** sub program

**b.** a complete program

**c.** a hardware portion

**d.** relative coding

Answer:(a).sub program

**41.** Grammar of the programming is checked at ..... phase of compiler.

**a.** semantic analysis

**b.** code generation

**c.** syntax analysis

**d.** code optimization

Answer:(c).syntax analysis

**42.** Macro-processors are .....

- a. Hardware
- b. Compiler
- c. Registers
- d. None of the above

Answer:(b).Compiler

**43.** An assembly program contains:

- a. imperative and declarative statements
- b. imperative and assembler directives
- c. imperative and declarative statements as well as assembler directives
- d. declarative statements and assembler directives

Answer:(c).imperative and declarative statements as well as assembler directives

Which of the following are Assembler Directives?

- (i) EQU
  - 44. (ii) ORIGIN
  - (iii) START
  - (iv) END
- a. (ii), (iii) and (iv)
  - b. (i), (iii) and (iv)
  - c. (iii) and (iv)
  - d. (i), (ii), (iii) and (iv)

Answer:(d).(i), (ii), (iii) and (iv)

**45.** Assembler program is:

- a. dependent on the operating system
- b. dependent on the compiler
- c. dependent on the hardware

- d. independent of the hardware

Answer:(c).dependent on the hardware

- 46.** In a two pass compiler, during the first pass:

- a. user defined address symbols are correlated with their binary equivalent
- b. the syntax of the statement is checked and mistakes, if any, are listed
- c. object program is generated
- d. semantic of the source program is elucidated

Answer:(a).user defined address symbols are correlated with their binary equivalent

- 47.** A single instruction in an assembly language program contains:

- a. one micro operation
- b. one macro operation
- c. one instruction to be completed in a single pulse
- d. one machine code instruction

Answer:(b).one macro operation

- 48.** An operating system is:

- a. Collection of hardware components
- b. Collection of input-output devices
- c. Collection of software routines
- d. All the above

Answer: (c).Collection of software routines

- 49.** Which activity is not included in the first pass of two pass assembler?

- a. build the symbol table
- b. construct the intermediate code
- c. separate mnemonic opcode and operand field

- d. none of these

Answer: (d).none of these

**50.** Which activity is not included in the first pass of two pass assemblers ?

- a. Build the symbol table
- b. Construct the machine code
- c. Separate mnemonic opcode and operand fields
- d. None of these

Answer: (d).None of these

**51.** Which activity is not included in the first pass of two pass assemblers?

- a. Build the symbol table
- b. Construct the intermediate code
- c. Separate mnemonic opcode and operand fields
- d. None of the above

Answer: (d).None of the above

**52.** Which activity is included in the first pass of two pass assemblers?

- a. Build the symbol table
- b. Construct the intermediate code
- c. Separate mnemonic opcode and operand fields
- d. All of the above

Answer: (d).All of the above

**53.** In two pass assembler the symbol table is used to store:

- a. Label and value
- b. Only value
- c. Mnemonic
- d. Memory Location

Answer: (d).Memory Location

**54.** Not an assembler directive

- a. XCHG
- b. ASSUME
- c. SHORT
- d. DB

Answer: (a).XCHG

55. The purpose of the ORIGIN directive is \_\_\_\_\_

- A. To indicate the starting position in memory, where the program block is to be stored
- B. To indicate the starting of the computation code
- C. To indicate the purpose of the code
- D. To list the locations of all the registers used

Answer: Option A

56. The last statement of the source program should be \_\_\_\_\_

- A. Stop
- B. Return
- C. OP
- D. End

Answer: Option D

57. In a two pass assembler, adding literals to literal table and address resolution of local symbols are done using?

- A. First pass and second respectively
- B. Both second pass
- C. Second pass and first respectively
- D. Both first pass

Answer: Option D

58. A machine language instruction format consists of

- A.** Operand field
- B.** Operation code field
- C.** Operation code field & operand field
- D.** None of the mentioned

59. In a two pass assembler the object code generation is done during the?

- A.** Second pass
- B.** First pass
- C.** Zeroeth pass
- D.** Not done by assembler

Answer: Option A

60. In a two-pass assembler, the task of the Pass II is to

- A.** separate the symbol, mnemonic opcode and operand fields
- B.** build the symbol table
- C.** construct intermediate code
- D.** synthesize the target program

Answer: Option D

61. Which of the following are language processors

- A.** assembler
- B.** compilers
- C.** interpreter
- D.** All of these

Answer: Option A

62. Which of the following might be used to convert high-level language instructions into machine language?

- A.** system software
- B.** applications software
- C.** an operating environment

**D.** an interpreter

Answer: Option D

63. Which of the following is designed to control the operations of a computer?

- a) Application Software
- b) System Software
- c) Utility Software
- d) User

Answer: b

Explanation: Software is basically classified into two: System and application. System Software is designed to control the operations and extend the processing capability of a computer system.

64. Which of the following is not an example of system software?

- a) Language Translator
- b) Utility Software
- c) Communication Software
- d) Word Processors

Answer: d

Explanation: A system software is responsible for controlling the operations of a computer system. Word Processor is an application software since it is specific to its purpose.

65. A person who designs the programs in a software package is called :

- a) User
- b) Software Manager
- c) System Developer
- d) System Programmer

Answer: d

Explanation: The programs included in a system software package are called system programs. The programmers who design them and prepare them are called system programmers.

66. \_\_\_\_\_ is designed to solve a specific problem or to do a specific task.

- a) Application Software
- b) System Software

- c) Utility Software
- d) User

Answer: a

Explanation: An application software is specific to solving a specific problem. System software is designed for controlling the operations of a computer system.

67. Assembler is used as a translator for?

- a) Low level language
- b) High Level Language
- c) COBOL
- d) C

Answer: a

Explanation: Assembler is used in case of low level languages. It is generally used to make the binary code into an understandable format. Interpreter is used with the high level languages similarly.

68. What do you call a program in execution?

- a) Command
- b) Process
- c) Task
- d) Instruction

Answer: b

Explanation: Option Process is correct. A program is a set of instructions. A program in execution is called a process.

69.

Which of the following functions is/ are performed by the loader?

- A. Allocate space in memory for the programs and resolve symbolic references between object decks
- B. Physically place the machine instructions and data into memory
- C. Adjust all address dependent locations, such as address constants, to correspond to the allocated space
- D. All of the above

**Answer:** Option D

70.

5.A self-relocating program is one which

- A cannot be made to execute in any area of storage other than the one designated for it at the time . of its coding or translation
- B.consists of a program and relevant information for its relocation
- C can itself perform the relocation of its address-sensitive portions
- D All of the above

**Answer:** Option C

71.

Which of the following systems software does the job of merging the records from two files into one?

- A Documentation system
- B.Utility program
- C Networking software
- D Security software

**Answer:** Option B

72.

A compiler for a high-level language that runs on one machine and produces code for a different machine is called

- A optimizing compiler
- B.one pass compiler
- C cross compiler
- D multipass compiler

**Answer:** Option C

73.

Assembly code data base is associated with

- A.a permanent table which lists all key words and special symbols of the language in symbolic form
- B. a permanent table of decision rules in the form of patterns for matching with the uniform symbol table to discover syntactic structure
- C. consists of a full or partial list of the tokens as they appear in the program. Created by Lexical analysis and used for syntax analysis and interpretation
- D. assembly language version of the program which is created by the code generation phase and is input to the assembly phase

**Answer:** Option D

74.

A development strategy whereby the executive control modules of a system are coded and tested first, is known as

- A Bottom-up development
- .
- B. Top-down development
- C Left-Right development
- .
- D All of the above
- .

**Answer:** Option B

75.

A non-relocatable program is one which

- A cannot be made to execute in any area of storage other than the one designated for it at the time of its coding or translation
- .
- B. consists of a program and relevant information for its relocation
- C can itself perform the relocation of its address-sensitive portions
- .
- D All Of the above
- .

**Answer:** Option A

76.

Multiprogramming was made possible by

- A.input/output units that operate independently of the CPU

- B.**operating systems
- C.**both (a) and (b)
- D.**neither (a) nor (b)

**Answer:** Option C

77.

An Interpreter is

- A.**is a program that appears to execute a source program as if it were machine language
- B.**a program that automate the translation of assembly language into machine language
- C.**program that accepts a program written in a high level language and produces an object program
- D.**a program that places programs into memory and prepares them for execution

**Answer:** Option A

78.

Systems software is a program that directs the overall operation of the computer, facilitates its use and interacts with the users. What are the different types of this software?

- A.**Operating system
- B.**Languages
- C.**Utilities
- D.**All of the above

**Answer:** Option D

79.

Assembler is

- A.**a program that automate the translation of assembly language into machine language
- B.**a program that accepts a program written in a high level language and produces an object program
- C.**a program that places programs into memory and prepares them for execution
- D.**is a program that appears to execute a source program as if it were machine language

**Answer:** Option A

80.

A translator which reads an entire programme written in a high level language and converts it into

machine language code is:

- A.assembler
- B.translator
- C.compiler
- D.system software

**Answer:** Option C

81.

Which of the following might be used to convert high-level language instructions into machine language?

- A system software
- .
- B.applications software
- .
- C an operating environment
- .
- D an interpreter
- .

**Answer:** Option D

82.

Which of the following program is not a utility?

- A Debugger
- .
- B.Editor
- .
- C Spooler
- .
- D All of the above
- .

**Answer:** Option C

83. A translator which reads an entire programme written in a high level language and converts it into machine language code is:

- |              |                    |
|--------------|--------------------|
| A. compiler  | B. translator      |
| C. assembler | D. system software |

**Answer:** A

**Explanation:**

compiler

84. Which of the following might be used to convert high-level language instructions into machine language?

- A an interpreter
- .
- B system software
- .
- C applications software
- .
- D an operating environment
- .

**Answer & Explanation**

**Answer:** A

**Explanation:**

an interpreter

85. The advantage(s) inherent to using high level languages is/are:

- A A greater degree of machine independence
- .
- B Improved debugging capability, and superior documentation
- .
- C Fewer people, less management and shorter transition in learning time
- .
- D All of the above
- .

**Answer & Explanation**

**Answer:** D

**Explanation:**

All of the above

86. . A development strategy whereby the executive control modules of a system are coded and tested first, is known as

- A. Top-down development
- B. Bottom-up development
- C. Left-Right development
- D. All of the above

## **Answer & Explanation**

**Answer:A**

**Explanation:**

Top-down development

87. Multiprogramming was made possible by

- A. operating systems
- B. input/output units that operate independently of the CPU
- C. both (a) and (b)
- D. neither (a) nor (b)

## **Answer & Explanation**

**Answer:C**

**Explanation:**

both (a) and (b)

88. An Interpreter is

- A. a program that places programs into memory and prepares them for execution
- B. a program that automate the translation of assembly language into machine language
- C. is a program that appears to execute a source program as if it were machine language
- D. program that accepts a program written in a high level language and produces an object

## **Answer & Explanation**

**Answer:C**

**Explanation:**

is a program that appears to execute a source program as if it were machine language

89. Systems software is a program that directs the overall operation of the computer, facilitates its use and interacts with the users. What are the different types of this software?

- A. Utilities
- B. Languages
- C. Operating system
- D. All of the above

## **Answer & Explanation**

**Answer:D**

**Explanation:**

All of the above

90. Loaders that allow for program relocation are called

- A. relative loaders
- B. relocating loaders
- C. both (a) and (b)
- D. None of the above

**Answer & Explanation**

**Answer:C**

**Explanation:**

both (a) and (b)

91. The task(s) of the Lexical analysis phase is/are:

- A. to build a uniform symbol table
- B. to build a literal table and an identifier table
- C. to parse the source program into the basic elements or tokens of the language
- D. All of the above

**Answer & Explanation**

**Answer:D**

**Explanation:**

All of the above

92. The action of parsing the source program into the proper syntactic classes is known as

- A. lexical analysis
- B. syntax analysis
- C. general syntax analysis
- D. interpretation analysis

**Answer & Explanation**

**Answer:A**

**Explanation:**

lexical analysis

93. Advantage(s) of using assembly language rather than machine language is/are:

- A. Introduction of data to program is easier
- B. Addresses any symbolic, not absolute
- C. It is mnemonic and easy to read
- D. All of the above

**Answer & Explanation**

**Answer:D**

**Explanation:**

All of the above

94. The table created by lexical analysis to describe all literals used in the source program, is:

- A. Reductions
- C. Identifier table
- B. Literal table
- D. Terminal table

**Answer & Explanation**

**Answer:B**

**Explanation:**

Literal table

95. Indicate which of the following is not true about an interpreter?

- A. Interpreter is a kind of translator
- B. Interpreter generates an object program from the source program
- C. Interpreter analyses each source statement every time it is to be executed
- D. All of the above

**Answer & Explanation**

**Answer:B**

**Explanation:**

Interpreter generates an object program from the source program

96. When a computer is first turned on or restarted, a special type of absolute loader, called a \_\_\_\_\_ is executed

- A. bootstrap loader
- B. loader
- C. linker

- D.** None of the above

**Answer & Explanation**

**Answer:A**

**Explanation:**

bootstrap loader

97. A compiler is

- A.** a program that places programs into memory and prepares them for execution
- B.** a program that automate the translation of assembly language into machine language
- C.** is a program that appears to execute a source program as if it were machine language
- D.** program that accepts a program written in a high level language and produces an object program

**Answer & Explanation**

**Answer:D**

**Explanation:**

program that accepts a program written in a high level language and produces an object program

98. An algorithm is best described as

- A.** A computer language
- B.** A branch of mathematics
- C.** A step by step procedure for solving a problem
- D.** All of the above

**Answer & Explanation**

**Answer:C**

**Explanation:**

A step by step procedure for solving a problem

99. Which of the following system program forgoes the production of object code to generate absolute machine code and load it into the physical main storage location from which it will be executed immedia

- A.** compiler
- B.** macroprocessor
- C.** two pass assembler
- D.** load-and-go assembler

## **Answer & Explanation**

**Answer:D**

**Explanation:**

load-and-go assembler

100.

Bug means

- A.** A logical error in a program
- B.** A difficult syntax error in a program
- C.** Documenting programs using an efficient documentation tool
- D.** All of the above

**Answer & Explanation**

**Answer:A**

**Explanation:**

A logical error in a program

# **UNIT-I**

## **INTRODUCTION**

1. In a two pass assembler the object code generation is done during the?

- A. Second pass
- B. First pass
- C. Zeroeth pass
- D. Not done by assembler

Ans:A

2. Which of the following is not a type of assembler ?

- A. Second pass
- B. First pass
- C. Three pass
- D. Load and Go

Ans:C

3. In a two pass assembler, adding literals to literal table and address resolution of local symbols are done using ?

- A. First Pass and second pass respectively
- B. Both Second pass
- C . Second pass and first respectively
- D. Both first pass

Ans:D

4. In a two pass assembler the pseudo code EQU is to be evaluated during?

- A. Pass 1
- B. Pass 2
- C. not evaluated by the assembler
- D. None of above

Ans: A

5. Which of the following system program foregoes the production of object code to generate absolute machine code and load it into the physical main storage location from which it will be executed immediately upon completion of the assembly ?

- A. Macro processor
- B. Load and go assembler
- C. Two pass assembler
- D. Compiler

Ans: B

6. Translator for low level programming language were termed as

- A. Assembler
- B. Compiler
- C. Linker
- D. Loader

Ans: A

7. An assembler is

- A. programming language dependent
- B. syntax dependant
- C. machine dependant
- D. data dependant

Ans: C

8. An imperative statement

- A. Reserves areas of memory and associates names with them
- B. Indicates an action to be performed during execution of assembled program
- C. Indicates an action to be performed during optimization
- D. None of the above

Ans:B

9. In a two-pass assembler, the task of the Pass II is to

- A. separate the symbol, mnemonic opcode and operand fields.
- B. build the symbol table.
- C. construct intermediate code.
- D. synthesize the target program.

Ans:D

10. TII stands for

- A. Table of incomplete instructions
- B. Table of information instructions
- C. Translation of instructions information
- D. Translation of information instruction

Ans: A

11. Assembler is a machine dependent, because of?

- A. Macro definition table(MDT)
- B. Pseudo operation table(POT)
- C. Argument list array(ALA)
- D. Mnemonics operation table(MOT)

Ans:D

12. Assembler is ?

- A. A program that places programs into memory and prepares them for execution
- B. A program that automates the translation of assembly language into machine language
- C. A program that accepts a program written in high level language and produces an object program
- D. Is a program that appears to execute a source program as if it were machine language

Ans:B

13. Forward reference table (FRT) is arranged like ?

- A. Stack
- B. Queue
- C. Linked list
- D. Double linked list

Ans: C

14. A single two pass assembler does which of the following in the first pass

- A. It allocates space for the literals
- B. It computes the total length of the program
- C. It builds the symbol table for the symbols and their values
- D. all of the above

Ans:D

15. Which of the following is not a function of pass1 of an assembler

- A. generate data
- B. keep track of LC
- C. remember literals
- D. remember values of symbols until pass 2

Ans: A

16. The instructions like MOV or ADD are called as \_\_\_\_\_ .

- A. OP-Code
- B. Operators
- C. Commands
- D. None of the above

Ans:A

17. Instructions which will not appear in the object program are called as \_\_\_\_\_ .

- A. Redundant instructions
- B. Exceptions
- C. Comments

D. Assembler Directives

Ans: D

18. The assembler stores all the names and their corresponding values in \_\_\_\_\_

- A. Special purpose Register
- B. Symbol Table
- C. Value map Set
- D. None of the above

Ans: B

19. When dealing with the branching code, the assembler

- A. Replaces the target with its address
- B. Does not replace until the test condition is satisfied
- C. Finds the Branch offset and replaces the Branch target with it
- D. Replaces the target with the value specified by the DATAWORD directive

Ans:C

20. The last statement of the source program should be \_\_\_\_\_.

- A. Stop
- B. Return
- C. OP
- D. End

Ans:D

21. Address symbol table is generated by the

- A. Memory management software
- B. Assembler
- C. Match logic of associative memory
- D. Generated by operating system

Ans: B

22. Which of these features of assembler are Machine-Dependent ?

- A. Instruction formats
- B. Addressing modes
- C. Program relocation
- D. All of the mentioned

Ans:D

23. In a two pass assembler pseudo code EQU is to be evaluated during

- A. pass 1

- B. pass 2
- C. not evaluated by the assembler
- D. none of these

Ans:A

24. The translator used by second generation languages is?

- A. assembler
- B. interpreter
- C. compiler
- D. linker

Ans:A

25. A simple two-pass assembler does which of the following in the first pass?

- A. It allocates space for the literals
- B. It computes the total length of the program
- C. It builds the symbol table for the symbols and their values
- D. All of these

Ans:D

26. In analyzing the compilation of PL/I program the description " resolving symbolic address ( labels ) and generating machine language " is associated with

- A. syntax analysis
- B. code generation
- C. storage assignment
- D. assembly and output

Ans:D

27. In a single pass assembler, most of the forward references can be avoided by putting the restriction

- A. that the data segment must be defined after the code segment
- B. on the number of strings/life reacts
- C. on unconditional Jump
- D. None of these

Ans: A

28. Pass 2 -

- A. perform processing of assembler directives not done during pass 1
- B. writes the object program and assembly listing
- C. assemble instruction and generate data
- D. all of these

Ans:D

29. Pass I -

- A. save the values assigned to all labels for use in pass 2
- B. perform some processing of assembler directives
- C. assign address to all statements in the program
- D. all of these

Ans:D

30. Which table is permanent databases that has an entry for each terminal symbol ?

- A. Literal table
- B. Identifier table
- C. Terminal table
- D. None of these

Ans:C

31. Which of the following system program forgoes the production of object code to generate absolute machine code and load it into the physical main storage location from which it will be executed immediately upon completion of the assembly?

- A. compiler
- B. macroprocessor
- C. two pass assembler
- D. load-and-go assembler

Ans:D

32. In a two-pass assembler, symbol table is

- A. Generated in first pass
- B. Generated in second pass
- C. Not generated at all
- D. Generated and used only in second pass

Ans:C

33. Match the following:

- |                             |                                      |
|-----------------------------|--------------------------------------|
| (a) Forward Reference Table | (i) Assembler directive              |
| (b) Mnemonic Table          | (ii) Uses array data structure       |
| (c) Segment Register Table  | (iii) Contains machine OP code       |
| (d) code: EQU               | (iv) Uses linked list data structure |
| (a) (b) (c) (d)             |                                      |

A. (ii) (iii) (iv) (i)

- B. (iii) (iv) (ii) (i)
- C. (iv) (i) (iii) (ii)
- D. (iv) (iii) (ii) (i)

Ans:D

34. Which of the following program is not a utility?

- A. Debugger
- B. Editor
- C. Spooler
- D. All of the above

Ans:C

35. Software that allows your computer to interact with the user, applications, and hardware is called

- A. application software
- B. word processor
- C. system software
- D. database software

Ans:C

36. Programs that coordinate computer resources, provide an interface between users and the computer and run applications are called

- A. utilities
- B. operating systems
- C. device drivers
- D. language translators

Ans:B

37. This type of program performs specific tasks related to managing computer resources.

Also known as a service program,

- A. utility
- B. operating system
- C. language translator
- D. device driver

Ans:A

38. The purpose of the ORIGIN directive is \_\_\_\_\_

- A. To indicate the starting position in memory, where the program block is to be stored
- B. To indicate the starting of the computation code
- C. To indicate the purpose of the code

D. To list the locations of all the registers used

Ans:A

39. A machine language instruction format consists of

- A. Operand field
- B. Operation code field
- C. Operation code field & operand field
- D. None of the mentioned

Ans:C

40. The extension file that is must for a file to be accepted by the LINK as a valid object file is

- A. .OBJ file
- B. .EXE file
- C. .MASM file
- D. DEBUG file

Ans:A

41. Which of the following are language processors

- A. assembler
- B. compilers
- C. interpreter
- D. All of these

Ans:D

42. Programming language in which there is a very strong correspondence between the language and the architecture's machine code instructions is termed as

- A. machine language
- B. assembly language
- C. high level language
- D. medium language

Ans:B

43. Binder performs the functions of

- A. allocation
- B. relocation
- C. linking
- D. All of these

Ans:D

**44. Which development tool / program has the potential to allocate the specific Addresses so as to load the object code into memory?**

- A. Loader
- B. Locator
- C. Library
- D. Linker

Ans:B

**45. The assembler list file generated by an assembler mainly includes \_\_\_\_\_**

- a. binary codes
- b. assembly language statements
- c. offset for each instruction
- d. all of the above

Ans:d

**46. Which kind of assembler does not generate the programs in similar language as that used by micro-controllers by developing the program in high-level languages making them as machine independent?**

- a. Macro Assembler
- b. Cross Assembler
- c. Meta Assembler
- d. All of the above

Ans:b

**47. What kind of address/es is /are usually assigned to program by the linker adopted in an execution of assembler?**

- a. Absolute Address
- b. Relative Address starting from unity
- c. Relative Addresses starting from zero
- d. None of the above

Ans:C

**48. What are the major form of functionalities associated to high-level language compilers?**

- a. Generation of an application program
- b. Conversion of generated code from higher level language to machine-level language
- c. Both a & b
- d. None of the above

Ans:c

**49. Which development tool can facilitate the creation and modification of source programs in addition to assembly and higher -level languages?**

- a. Editor
- b. Assembler
- c. Debugger
- d. High-level language Compiler

Ans:a

**50. It is a characteristic provision of some debuggers to stop the execution after each instruction because\_\_\_\_\_**

- a. it facilitates to analyze or vary the contents of memory and register
- b. it facilitates to move the break point to a later point
- c. it facilitates to rerun the program
- d. it facilitates to load the object code program to system memory

Ans:a

**51. An interpreter is a program that**

- A. places programs into memory and prepares them for execution
- B. automates the translation of assembly language into machine language
- C. accepts a program written in a high level language and produces an object program
- D. appears to execute a resource as if it were machine language

Ans:D

**52. A simple two pass assembler does which of the following in the first class**

- a. It allocates space for the literals
- b. It computes the total length of the program
- c. It builds the symbol table for the symbols and their values
- d. It generates code for all the load and stores regular instruction

A. only a

B. a and b

C. a,b and c

D. only d

Ans:C

**53. Mnemonic refers to:**

- A. Instructions
- B. Code
- C. Symbolic codes
- D. Assembler

Ans:C

54. Mnemonic represent:

- A. Operation codes
- B. Strings
- C. Address
- D. None of these

Ans:A

55. To represent addresses in assembly language we use

- A. String characters
- B. Arrays
- C. Structure
- D. Enum

Ans:A

56. \_\_\_\_\_ generation computers use assembly language:

- A. First generation
- B. Third generation
- C. second generation
- D. fourth generation

Ans:C

57. The assembler translates isomorphically \_\_\_\_\_ mapping from mnemonic in these statements to machine instructions:

- A. 1:1
- B. 2:1
- C. 3:3
- D. 4:1

Ans:A

58. In second pass, assembler creates \_\_\_\_\_ in binary format for every instruction in program and then refers to the symbol table to giving every symbol an\_\_\_\_\_ relating the segment.

- A. Code and program
- B. Program and instruction
- C. Code and offset
- D. All of these

Ans:C

59. In which code is object file is coded:

- A. Link code
- B. Decimal code

C. Assembly code

D. Binary code

Ans:D

60. which type of errors are detected by the assembler:

- a. syntax error
- b. logical error
- c. run time error
- d. none of these

Ans:a

61. MOVE AX BX in this LINES OF CODE what type of error is declared:

- a. Undeclared identifier MOVE
- b. undeclared identifier AX
- c. Accept as a command
- d. Not look in symbol table

Ans:A

62. What type of errors are not detected by assemblers:

- a. Syntax error
- b. Run time error
- c. Logical error
- d. All of these

Ans:C

63. An assembler is a utility program that performs:

- a. Isometric translation
- b. Isomorphic translation
- c. Isochoric translation
- d. None of these

Ans:b

64. Assemblers are of 2 types:

- a. 1 pass
- b. 2 pass
- c. both a & b
- d. none of these

Ans:c

65. Which of the following is not an example of system software?

- A. Word Processors
- B. Language Translator
- C. Utility Software
- D. Communication Software

Ans:A

66. \_\_\_\_\_ is designed to solve a specific problem or to do a specific task

- A. System Software
- B. Utility Software
- C. User
- D. Application Software

Ans:D

67. Which statements are used for reserving memory for variables

- A. Imperative statement
- B. Assembler Directives
- C. Declaration statements
- D. None of the above

Ans:C

68. Which are advanced Assembler directives

- A. ORIGIN
- B. EQU
- C. LTORG
- D. All of the above

Ans:D

69. Which directive is used to reset Location Counter?

- A. ORIGIN
- B. EQU
- C. LTORG
- D. None of the above

Ans:A

70. Correct Syntax of ORIGIN

- A. A ORIGIN 408
- B. 408 ORIGIN A
- C. ORIGIN A 408
- D. ORIGIN A

Ans: D

71. Correct Syntax of using LTORG is

- A. LTORG L
- B. LTORG 200
- C. 200 LTORG
- D. LTORG

Ans:D

72. Match the following

- |           |  |
|-----------|--|
| a. LTORG  | i) Used to set new address for LC                |
| b. ORIGIN | ii) Depending on condition code transfer control |
| c. EQU    | iii) Allocates addresses to literals             |
| d. BC     | iv) Associates new address to symbol             |
- A. (a)-iii (b)-i (c)-ii (d)-iv  
B. (a)-iii (b)-i (c)-iv (d)-ii  
C. (a)-iii (b)-iv (c)-i (d)-ii  
D. (a)-iii (b)-iI (c)-iv (d)-i

Ans: B

73. Which statement is used to specify size of variable?

- A. LTORG
- B. DC
- C. DS
- D. END

Ans: C

74. A simple two-pass assembler does the following in the first pass:

- (a) It allocates space for the literals.
- (b) It computes the total length of the program
- (c) It builds the symbol table for the symbols and their values.
- (d) It generates code for all the load and store register instructions.
- (e) None of the above.

Ans: C

75. What will be LC value after end of code?

```
START 200
      MOVER AREG '=5'
      MOVEM AREG X
L1    MOVER BREG '=2'
      ORIGIN L1+3
```

- A. 203
- B. 204
- C. 206
- D. 205

Ans:D

76. What will be addresses of literals?

```
START 200
      MOVER AREG '=5'
      MOVEM AREG X
L1    MOVER BREG '=2'
      ORIGIN L1+3
```

- A. Literal '=2' address 205 and Literal '=5' address is 206
- B. Literal '=2' address 204 and Literal '=5' address is 205
- C. Literal '=5' address 204 and Literal '=2' address is 205
- D. Literal '=5' address 205 and Literal '=6' address is 206

Ans: D

77. What will be addresses of literals?

```
START 200
      MOVER AREG '=5'
```

MOVEM AREG X  
L1 MOVER BREG '=2'  
ORIGIN L1+6

- A. Literal '=2' address 209 and Literal '=5' address is 210
- B. Literal '=2' address 210 and Literal '=5' address is 209
- C. Literal '=5' address 208 and Literal '=2' address is 209
- D. Literal '=5' address 209 and Literal '=6' address is 208

Ans: C

78. What will be addresses of literals?

START 200  
L1 MOVER AREG '=5'  
MOVEM AREG X  
MOVER BREG '=2'  
ORIGIN L1+6

- A. Literal '=2' address 209 and Literal '=5' address is 210
- B. Literal '=2' address 208 and Literal '=5' address is 207
- C. Literal '=5' address 208 and Literal '=2' address is 207
- D. Literal '=5' address 209 and Literal '=6' address is 208

Ans: B

79. Find literals and label in following code

START 200  
L1 MOVER AREG '=5'  
MOVEM AREG X  
MOVER BREG '=2'  
ORIGIN L1+6

- A. Literals:X and 2 label: L1
- B. Literals:L1 label: 5 and 2
- C. Literals:5 and 2 label: X+6
- D. Literals:5 and 2 label: L1

Ans: D

80. What will be address of D and A

START 100  
MOVER AREG '=5'  
ADD CREG '=1'  
A DS 3  
L1 MOVER AREG B  
ADD AREG C  
MOVEM AREG D

LTORG  
D EQU A+1

- A. Address of A=103 Address of D=104
- B. Address of A=102 Address of D=110
- C. Address of A=102 Address of D=103
- D. Address of A=102 Address of D=107

Ans:C

81. What will be address of literals

START 100  
MOVER AREG '=5'  
ADD CREG '=1'  
A DS 3  
L1 MOVER AREG B  
ADD AREG C  
MOVEM AREG D  
LTORG  
D EQU A+1

- A. Address of first literal= 101 Address of first literal=102
- B. Address of first literal= 108 Address of first literal=109
- C. Address of first literal= 106 Address of first literal=107
- D. Address of first literal= 100 Address of first literal=101

Ans:B

82. From following assembly code which are literals and symbols

START 100  
MOVER AREG '=5'  
ADD CREG '=1'  
A DS 3  
L1 MOVER AREG B  
ADD AREG C  
MOVEM AREG D  
LTORG  
D EQU A+1  
A. Symbols are L1, A, B and Literals are 5, 1  
B. Symbols are A, B and Literals are 3, 5, 1  
C. Symbols is L1 and Literals are 5, 1  
D. Symbols are A, B and Literals are 5, 1  
Ans: D

83. Which *pseudo code* indicates to the *assembler* which *general purpose register* to use as a base and what its contents will be.

- A. USING
- B. BALR
- C. BR
- D. NONE

Ans:A

84. The advantages of assembly level programming are

- a) flexibility of programming is more
- b) chances of error are less
- c) debugging is easy
- d) all of the mentioned

Ans:D

85. The extension that is essential for every assembly level program is

- a) .ASP
- b) .ALP
- c) .ASM
- d) .PGM

Ans:c

## **UNIT-II**

# **MACROPROCESSOR, LINKER AND LOADER**

1. The object code is then passed through a program called a \_\_\_\_\_ which turns it into an executable program.
  - A. Integer
  - B. Source code
  - C. Linker
  - D. None of the above

Ans:C
  
2. When a computer is first turned on or restarted, a special type of absolute loader is executed, called a
  - A. Compile and Go loader
  - B. Boot loader
  - C. Bootstrap loader
  - D. Relating loader

Ans:C
  
3. Which of the following system software resides in main memory always?
  - A. Text editor
  - B. Assembler
  - C. Linker
  - D. LOADER

Ans:D
  
4. Which is not a function of a loader?
  - A. Allocation
  - B. Translation
  - C. Relocation
  - D. Loading

Ans:B
  
5. Disadvantage of compiler and go loading scheme is that
  - A. a position of memory is wasted because the case occupied by the assembler is unavailable the object program
  - B. it is necessary to retranslate the users program check every time it is run
  - C. it is very difficult to handle multiple segments especially if the source programs are in different language and to produce overlay modular programs
  - D. all of the above

Ans:D

6. The non relocatable program is one which
  - A. Can not made to execute in any area to storage other than the one designated for it at the time of its coding or translation
  - B. consists of a program and relevant information for its relocation
  - C. can itself perform the relocation of its address sensitive positions
  - D. all of the above

Ans:A

7. By whom address of external function in the assembly source file supplied by \_\_\_\_\_ when activated:

- a. Assembler
- b. Linker
- c. Machine
- d. Code

Ans:b

8. A\_\_\_\_\_ processor controls repetitious writing of sequence:

- a. Macro
- b. Micro
- c. Nano
- d. All of these

Ans:A

9. IBM-360 type language is example which supporting\_\_\_\_\_ language:

- a. Micro
- b. Macro
- c. Both a & b
- d. None of these

Ans:b

10. \_\_\_\_\_ is attached to using macro instruction definition:

- a. Name
- b. Definition
- c. Identifier
- d. All of these.

Ans: a

11. END of macro definition by

- a. NAME
- b. MEND
- c. DATA

d. MEMORY

Ans:b

12. Process of replacing the sequence of lines of codes is known as:

- a. Tetra macro
- b. Expanding tri macro
- c. Expanding macro
- d. None of these

Ans:c

13. A program that links several programs is called:

- a. Loader
- b. Linker
- c. Translator
- d. None of these

Ans:b

14. \_\_\_\_\_ address is not assigned by linker:

- a. Relative
- b. Absolute
- c. Both a & b
- d. None of these

Ans:b

15. . \_\_\_\_\_ address is provided by linker to modules linked together that starting from \_\_\_\_\_ :

- a. Absolute and 0
- b. Relative and 0
- c. Relative and 1
- d. Relative and 3

Ans:b

16. . A linker is also known as:

- a. Binder
- b. Linkage editor
- c. Both a & b
- d. None of these

Ans:C

17. Loading is \_\_\_\_\_ with the task of storage management of operating system and mostly preformed after assembly:

- a. Expanded
- b. Bound

- c. Overlaps
- d. All of these

Ans:b

18. It is the task of the \_\_\_\_\_ to locate externally defined symbols in programs, load them in to memory by placing their \_\_\_\_\_ of symbols in calling program:

- a. Loader and name
- b. Linker and values
- c. Linker and name
- d. Loader and values

Ans:d

19. Linker creates a link file containing binary codes and also produces\_\_\_\_\_ containing address information on linked files:

- a. Symbol map
- b. Map table
- c. Link map
- d. None of these

Ans:c

20. A module contains machine code with specification on\_\_\_\_\_:

- a. Relative addresses
- b. Absolute addresses
- c. Object program
- d. None of these

Ans:a

21. After actual locations for main storage are known, a \_\_\_\_\_adjusts relative addresses to these actual locations

- a. Default loader
- b. Locating loader
- c. Relocating loader
- d. None of these

Ans:c

22. If there is a module from single source-language only that does not contain any external references, it doesn't need a linker to load it and is loaded\_\_\_\_\_:

- a. Indirectly
- b. Directly
- c. Extending
- d. None of these

Ans:b

23. In an absolute loading scheme, which loader function is accomplished by assembler?

- A. Relocation
- B. Allocation
- C. Linking
- D. Loading

Ans:A

24. The linker?

- A. is same as the loader
- B. is required to create a load module
- C. is always used before programs are executed
- D. None of above

Ans:B

25. A system program that combines the separately compiled modules of a program into a form suitable for execution ?

- A. Assembler
- B. Linking loader
- C. Cross compiler
- D. Load and Go

Ans:B

26. Loading process can be divided into two separate programs, to solve some problems. The first is binder the other is?

- A. Linkage editor
- B. Module Loader
- C. Relocator
- D. None of these

Ans:B

27. Load address for the first word of the program is called

- A. Load address origin
- B. Linker address origin
- C. Phase library
- D. Absolute library

Ans: A

28. Resolution of externally defined symbols is performed by

- A. Linker
- B. Loader
- C. Compiler

D. Editor

Ans:A

29. Relocatable programs

- A. cannot be used with fixed partitions
- B. can be loaded almost anywhere in memory
- C. do not need a linker
- D. can be loaded only at one specific location

Ans:B

30. Memory allocation involves which of the following task(s)

- A. determine amount of memory required
- B. use an appropriate memory allocation model
- C. determine appropriate memory mapping
- D. All of the above

Ans: D

31. \_\_\_\_\_ is used for reducing relocation requirements.

- A. Relocation register
- B. Track register
- C. Binding register
- D. Segment Register

Ans: D

32. If load origin is not equal to linked origin then relocation is performed by

- A. Linker
- B. By program itself
- C. Loader
- D. Relocation not performed

Ans: C

33. If linked origin is not equal to translated address then relocation is performed

by\_\_\_\_\_.

- A. Absolute Loader
- B. Loader
- C. Linker
- D. None of the above

Ans:C

34. In an absolute loading scheme which loader function is accomplished by loader

- A. Linker
- B. Loader
- C. Compiler
- D. Editor

Ans: B

35. Relocating bits used by relocating loader are specified by

- A. Relocating loader itself
- B. Linker
- C. Assembler
- D. Macro processor

Ans:B

36. Which of the following can be accessed by transfer vector approach of linking?

- A. External data segments
- B. Data located in other procedure
- C. External subroutines
- D. All of these

Ans: C

37. A system program that combines separately compiled modules of a program into a form suitable for execution is

- A. Linking loader
- B. Assembler
- C. Cross compiler
- D. None of the mentioned

Ans:A

38. Which of the following module does not incorporate initialization of values changed by the module?

- A. re-enterable module
- B. all of these
- C. serially reusable module
- D. non reusable module

Ans: D

39. A linker is given object module for a set of programs that were compiled separately.

What information need not be included in an object module

- A. Object code
- B. Relocation bits

C. Absolute addresses of internal symbols.

D. Names and locations of all external symbols denied in the object module

Ans:C

40. Which of the following functions is performed by loader?

A. Adjust all address dependent locations, such as address constants, to correspond to the allocated space

B. Allocate space in memory for the programs and resolve symbolic references between objects decks

C. Physically place the machine instructions and data into memory

D. All of the above

Ans:D

41. In what module, multiple instances of execution will yield the same result even if one instance has not terminated before the next one has begun?

A. serially reusable

B. recursive module

C. reentrantable module

D. non-reusable module

Ans:C

42. Direct linking loader is an example of

A. Compile and Go loader

B. Absolute loader

C. Dynamic loader

D. Relocating loader

Ans:C

43. In direct linking loader which card is not related to object program

A. ESD

B. TXT

C. RLD

D. BSS

Ans:D

44. Binary Symbolic Subroutine loader is an example of

A. Compile and Go loader

B. Absolute loader

C. Dynamic loader

D. Relocating loader

Ans:D

45. In direct linking loader, Location and length of each address constant is maintained by

- A. ESD
- B. TXT
- C. RLD
- D. END

Ans: C

46. ESD cards contain information about

- A. All symbols that are defined in this program that may be reference elsewhere and all symbols reference in the program but defined elsewhere.
- B. Actual object code translated version of source program.
- C. Those location in the program whose content depend on the address at which program is placed.
- D. END of object deck.

Ans: A

47. TXT cards contain information about

- A. All symbols that are defined in this program that may be reference elsewhere and all symbols reference in the program but defined elsewhere.
- B. Actual object code translated version of source program.
- C. Those location in the program whose content depend on the address at which program is placed.
- D. END of object deck.

Ans: B

48. RLD cards contain information about

- A. All symbols that are defined in this program that may be reference elsewhere and all symbols reference in the program but defined elsewhere.
- B. Actual object code translated version of source program.
- C. Those location in the program whose content depend on the address at which program is placed.
- D. END of object deck.

Ans:C

49. END cards contain information about

- A. All symbols that are defined in this program that may be reference elsewhere and all symbols reference in the program but defined elsewhere.
- B. Actual object code translated version of source program.

C. Those location in the program whose content depend on the address at which program is placed.

D. END of object deck.

Ans:D

50. Transfer vector is used by Direct linking loader

A. TRUE

B. FALSE

Ans: A

51. In compile and go loader linking is performed loader.

A. TRUE

B. FALSE

Ans: B

52. Global External Symbol Table(GEST) is used by direct linking loader.

A. TRUE

B. FALSE

Ans:A

53. Global External Symbol Table(GEST) is not used by direct linking loader.

A. TRUE

B. FALSE

Ans:B

54. Local External Symbol Array is used by direct linking loader.

A. TRUE

B. FALSE

Ans:A

55. Local External Symbol Array) is not used by direct linking loader.

A. TRUE

B. FALSE

Ans: B

56. Overlay Structures used when

A. Virtual memory is available.

B. secondary memory is available

C. Virtual Memory is not available.

D. None of the above

Ans:C

57. In which card length of segment is present?

- A. ESD
- B. TXT
- C. RLD
- D. END

Ans: A

58. In direct linking loader, relocation and linking information of object program is present in

- A. ESD
- B. TXT
- C. RLD
- D. END

Ans:C

59. Match the following cards with it's functions

- |         |   |
|---------|---|
| (a) ESD | (i) Actual object code translated version     |
| (b) RLD | (ii) Specifies the address to start execution |
| (c) TXT | (iii) Contains relocation information         |
| (d) END | (iv) Information about entries and symbols    |
- (a) (b) (c) (d)

- A. (ii) (iii) (iv) (i)
- B. (iii) (iv) (ii) (i)
- C. (iv) (i) (iii) (ii)
- D. (iv) (iii) (i) (ii)

Ans:D

60. Which of the following features is not offered by Macros?

- A. Code reusability
- B. Less memory space
- C. Fast execution
- D. None of the above

Ans: B

61. Which of the following is the correct syntax for calling a Macro?

- A. MACRO macro\_name
- B. MACRO macro\_name [ parameter's list]
- C. macro\_name [parameter's list ]
- D. None of the above

Ans:C

62. Which of the following characteristics of Procedures makes it unfit for being used for short instruction sets with less number of instructions?

- A. Extra code requirement for integrating procedures
- B. Linking of procedures with the mainline program takes too much time
- C. Extra work load on processor for shifting controls
- D. All of the Above

Ans: D

63. In a program, a Macro is being called 'n' times. Then how many times is the machine code generated for the same?

- A. 1 time
- B. 'n' times
- C. 'n-1' times
- D. None of the above

Ans: B

64. Macro definition is enclosed

- A. between Macro header statement and macro end
- B. In main program
- C. In other function
- D. None of the above

Ans:A

65. MACRO definition consist of

- A. Macro prototype statement
- B. One or more model statements
- C. Macro pre-processor statements
- D. All of the above

Ans:D

66. A macro is

- A. a small program inside a program
- B. set of special instructions
- C. a unit of specification for program generation through expansion
- D. None of the above

Ans:C

67. A \_\_\_\_\_ statement declare the name of macro.

- A. macro prototype
- B. macro definition

- C. macro identification
  - D. None of the above
- Ans:A

68. During macro expansion each statement is replaced by

- A. the original program
- B. the sequence of assembly statement
- C. by specific symbols
- D. None of the above

Ans:B

69. Each macro statement is marked with the \_\_\_\_\_ sign preceded it.

- A. +
- B. @
- C. -
- D. \$

Ans:A

70. The flow control during macro expansion is

- A. combination
- B. chronological
- C. indexable
- D. sequential

Ans:D

71. A model statement contains call for another macro is called as

- A. referential macro call
- B. nested macro call
- C. inbuilt macro call
- D. inherited macro call

Ans:B

72. Expansion time variables are used

- A. Before expansion of micro calls
- B. only during expansion of macro calls
- C. After expansion of micro calls
- D. Any one of the above

Ans:B

73. The translator which perform macro expansion is called a

- A. Macro processor
- B. Macro pre-processor
- C. Micro pre-processor
- D. assembler

Ans:B

74. Macro processor is an inbuilt function of ?

- A. Loader
- B. Editor
- C. Linker
- D. Assembler

Ans:D

75. If a number of instructions are repeating through the main program, then to reduce the length of the program, ..... is used.

- A. procedure
- B. subroutine
- C. macro
- D. none of the mentioned

Ans:C

76. The process of assigning a label or macroname to the string is called

- A. initialising macro
- B. initialising string macro
- C. defining a string macro
- D. defining a macro

Ans: D

77. A macro can be used

- A. in data segment
- B. to represent directives
- C. to represent statements
- D. all of the mentioned

Ans: D

78. Inserting the statements and instructions represented by macro, directly at the place of the macroname, in the program, is known as

- A. calling a macro
- B. inserting a macro
- C. initializing a macro
- D. none of the mentioned

Ans: A

79. The time required for execution of a macro is ..... that of procedure.

- A. greater than
- B. less than
- C. equal to
- D. none of the mentioned

Ans:B

80. Which of the following statements is incorrect?

- A. complete code of instruction string is inserted at each place, wherever the macroname appears
- B. macro requires less time of execution than that of procedure
- C. macro uses stack memory
- D. macro name can be anything except registers and mnemonics

Ans:C

81. The beginning of the macro can be represented as

- A. START
- B. BEGIN
- C. MACRO
- D. none of the mentioned

Ans: C

82. Nested Macro calls are expanded using the

- A. FIFO rule (First in first out)
- B. LIFO (Last in First out)
- C. FILO rule (First in last out)
- D. None of the above

Ans:B

83. Macro-processors are \_\_\_\_\_

- A. Hardware
- B. Compilers
- C. Registers
- D. None of the above

Ans:B

84. Macro processor is an inbuilt function of -

- A. Loader

- B. Linker
- C. Editor
- D. Assembler

Ans:D

85. Advantage of incorporating the macro-processor into pass 1 is that
- A. many functions have to be implemented twice
  - B. more flexibility is available to the programmer in that he may use all the features of the assembler in conjunction with macros.
  - C. functions are combined and it is not necessary to create intermediate files as output from the macro-processor and input to the assembler.
  - D. all of these
- Ans: D
86. In which way a macro processor for assembly language can be implemented
- A. Processor incorporated into pass 1 of a standard two pass assembler
  - B. Independent one-pass processor
  - C. Independent two-pass processor
  - D. All of these
- Ans:D
87. What are x and y in the following macro definition?
- MACRO Add x, y  
Load y  
Mul x  
Store y  
MEND
- A. variables
  - B. identifiers
  - C. formal parameters
  - D. actual parameters
- Ans: C
88. The conditional expansion facility of macro processors is provided to
- A. to expand certain model statements depending upon the value of a condition during the execution of the expanded program
  - B. test a condition during the execution of the expanded program
  - C. Both (a) and (b)
  - D. to expand certain model statements depending upon the value of a condition during the process of macro expansion

Ans: C

89. The advantage(s) of incorporating the macro processor into pass 1 is/ are
- A. many functions do not have to be implemented twice
  - B. more flexibility is available to the programmer in which he/she may use all the features of the assembler in conjunction with macros
  - C. Functions are combined and it is not necessary to create intermediate files as output from the macro processor and input to the assembler
  - D. All of the above

Ans: D

90. In which way(s) can a macro processor for assembly language be implemented?
- A. independent one-pass processor
  - B. independent two-pass processor
  - C. processor incorporated into pass of a standard two-pass assembler
  - D. all of the above

Ans:D

91. Which symbol used with formal parameter?
- A. \$
  - B. %
  - C. @
  - D. &

Ans:D

92. Which of the following is true in MACRO?
- A. Keyword Parameters are written before positional parameters
  - B. Can be written in any order.
  - C. positional Parameters are written before Keyword parameters
  - D. Keyword parameters not allowed

Ans:C

93. MACRO uses both positional and keyword parameters?
- A. TRUE
  - B. FALSE

Ans:A

94. Consider following Macro
- MACRO  
INCR &MEM\_VAL &INCR\_VAL &REG

```
MOVER &REG &MEM_VAL  
ADD &REG &MEM_VAL  
MOVEM &REG &MEM_VAL  
MEND
```

Macro call for above definition will be?

- A. INCR A B AREG
- B. INCR MEM\_VAL=A INCR\_VAL=B REG=AREG
- C. INCR MEM\_VAL=A REG=AREG INCR\_VAL=B
- D. All of the above

Ans:A

95. Consider following Macro

```
MACRO  
INCR &MEM_VAL= &INCR_VAL= &REG=  
MOVER &REG &MEM_VAL  
ADD &REG &MEM_VAL  
MOVEM &REG &MEM_VAL  
MEND
```

Macro call for above definition will be?

- A. INCR A B AREG
- B. INCR MEM\_VAL=A INCR\_VAL=B REG=AREG
- C. INCR MEM\_VAL=A REG=AREG INCR\_VAL=B
- D. Both B and C

Ans:D

96. Consider following Macro

```
MACRO  
INCR &MEM_VAL=10 &INCR_VAL= &REG=  
MOVER &REG &MEM_VAL  
ADD &REG &MEM_VAL  
MOVEM &REG &MEM_VAL  
MEND
```

Macro call for above definition will be?

- A. INCR A B AREG
- B. INCR INCR\_VAL=B REG=AREG
- C. INCR MEM\_VAL=A REG=AREG INCR\_VAL=B
- D. Both B and C

Ans:D

97. While calling Macro, \_\_\_\_\_ Parameters are always placed before \_\_\_\_\_ parameters.

- A. Keyword, positional
- B. Positional, Keyword
- C. Default, Positional
- D. Positional, Default

Ans: B

98. Mixing of parameters is allowed in macro.

- A.TRUE
- B. FALSE

Ans: A

99. Mixing of parameters is not allowed in macro.

- A.TRUE
- B. FALSE

Ans: B

100. From following which is true?

- A. Macro uses positional, keyword and default parameters
- B. Positional Parameters are placed before Keyword parameters
- C. Macro uses mixing of all parameters
- D. All the above

Ans:D

## **UNIT-III**

### **LANGUAGE TRANSLATOR**

1. A compiler is a program that

- A places programs into memory and prepares them for execution.
- B automates the translation of assembly language into machine language.
- C accepts a program written in a high level language and produces an object program.
- D None of the above

Ans:C

2. The output of a lexical analyzer is

- A. Machine Code
- B. Intermediate Code
- C. Stream of Token
- D. Parse Tree

Ans: C

3. Which concept of grammar is used in the compiler?

- A Parser
- B Code optimization
- C Lexical analysis
- D Code generation

Ans: A

4. What goes over the characters of the lexeme to produce a value?

- A Scanner
- B Lexical generator
- C Parser
- D Evaluator

Ans:A

5. Two Important lexical categories are

- A White Space & Comments
- B White Space
- C Comments
- D None of the mentioned

Ans: A

6. Which grammar defines Lexical Syntax

- A Lexical Grammar
- B Context free Grammar
- C Regular Grammar
- D None of the above

Ans: A

7. When expression sum=3+2 is tokenized then what is the token category of 3
- A Integer Literal
  - B Addition Operator
  - C Identifier
  - D None of the above
- Ans: A
8. It has encoded within it information on the possible sequences of characters that can be contained within any of the tokens it handles..Above motioned function is performed by?
- A Syntactic Analyser
  - B Parser
  - C Scanner
  - D All of the mentioned
- Ans: C
9. A programmer, by mistake, writes an instruction to divide, instead of a multiply, such error can be detected by a/an
- A compiler
  - B interpreter
  - C compiler or interpreter test
  - D None of these
- Ans: D
10. The process of forming tokens from an input stream of characters is called\_\_\_\_\_
- A Tokenization
  - B Liberalisation
  - C Characterisation
  - D None of the mentioned
- Ans: A
11. Which of the following is a phase of a compilation process ?
- A Lexical analysis
  - B Code generation
  - C Both (a) and (b)
  - D None of these
- Ans:C
12. Compiler can diagnose
- A Grammatical errors only
  - B logical errors only
  - C grammatical as well as logical errors
  - D None of these
- Ans:A

13. System program such as compiler are designed so that they are

- A re-enterable
- B non-reusable
- C serially usable
- D None of the above

Ans: A

14. A compiler program written in a high level language is called

- A source program
- B object program
- C machine language program
- D None of these

Ans: A

15. The output of lexical analyzer is

- A Set of Tokens
- B A set of RE
- C Syntax Tree
- D None of the above

Ans: A

16. Which of the following are Lexemes?

- A Keywords
- B Identifiers
- C Constants
- D All of the mentioned

Ans: D

17. Which of the following is not a phase of compiler?

- a. syntax
- b. lexical
- c. testing
- d. code generation

Ans: c

18. In compiler, Source program is read by

- a. parser
- b. lexical analyzer
- c. developer
- d. analyst

Ans: b

19. In interpreter, Source program is read

- a. character by character

- b. line by line
- c. page by page
- d. module wise

Ans:b

20. Compiler

- a. reads source program
- b. converts it into target language
- c. both a and b
- d. none of the above

Ans:c

21. Token for if is

- a. id
- b. keyword
- c. If
- d. string

Ans: c

22. Output of parser is

- a. set of tokens
- b. parse tree
- c. object code
- d. intermediate code

Ans: b

23. Grammar is ambiguous if

- a. it has 2 parse trees
- b. it has two left most derivations
- c. it has two right most derivations
- d. all of the above

Ans: d

24. Parsing is also known as

- a. syntax analysis
- b. lexical analysis
- c. semantic analysis
- d. code generation

Ans: a

25. The concept of FSA is much used in this part of the compiler

- a. lexical analysis
- b. parser
- c. code generation
- d. code optimization

Ans: a

26. Input buffer is used

- a. syntax analysis
- b. lexical analysis
- c. semantic analysis
- d. code generation

Ans: b

27. Input buffer is

- a. symbol table
- b. divided into two halves
- c. divided into Three halves
- d. not divided

Ans: b

28. How many Pointers are maintained in Input buffering Scheme?

- a. One
- b. Two
- c. Three
- d. None of these

Ans: b

29. In input buffering scheme use two pointer are

- a. low and High
- b. First and second
- c. Begin Pointer and Forward pointer
- d. None of the above

Ans: c

30. A grammar that produces more than one parse tree for some sentence is called

- a) Ambiguous
- b) Unambiguous
- c) Regular
- d) None of the mentioned

Ans: a

31. The optimization which avoids test at every iteration is

- a) Loop unrolling
- b) Loop jamming
- c) Constant folding
- d) None of the mentioned

Ans: a

32. Shift reduce parsers are

- a) Top down Parser
- b) Bottom Up parser
- c) May be top down or bottom up
- d) None of the mentioned

Ans: b

33. An intermediate code form is

- a) Postfix notation
- b) Syntax Trees
- c) Three Address code
- d) All of the mentioned

Ans: d

34. A bottom up parser generates

- a) Right most derivation
- b) Right most derivation in reverse
- c) Left most derivation
- d) Left most derivation in reverse

Ans: b

35. A optimizing compiler

- a) Is optimized to occupy less space
- b) Is optimized to take less time for execution
- c) Optimized the code
- d) None of the mentioned

Ans: c

36. Input to code generator

- a) Source code
- b) Intermediate code
- c) Target code
- d) All of the mentioned

Ans: b

37. \_\_\_\_\_ is a graph representation of a derivation

- a) The parse tree
- b) Oct tree
- c) Binary tree
- d) None of the mentioned

Ans: a

38. An intermediate code form is

- a) Postfix Notation

- b) Syntax Trees
- c) Three address code
- d) All of the mentioned

Ans: c

39. How many parts of compiler are there?

- A. 1
- B. 2
- C. 4
- D. 8

Ans: B

40. Grammar of the programming is checked at \_\_\_\_\_ phase of compiler.

- A. Semantic analysis
- B. Syntax analysis
- C. Code optimization
- D. Code generation

Ans: B

41. Compiler can check \_\_\_\_\_ error.

- A. Logical
- B. Syntax
- C. Content
- D. Both A and B

Ans: B

42. What is the name of the process that determining whether a string of tokens can be generated by a grammar?

- A. Analysing
- B. Recognizing
- C. Translating
- D. Parsing

Ans: D

43. Dead code elimination is done in

- A. Lexical Phase
- B. Syntax analysis
- C. Code generation
- D. Code optimization

Ans: D

44. Which of the following operations done in code optimization

- A. Memory management
- B. Eliminate redundancies

- C. Generating code
- D. Register allocation

Ans: B

45. Which of the following operations done in code generation

- A. Generating code
- B. Register allocation
- C. Memory management
- D. All of the above

Ans: D

46. Match the following

- |                      |                                       |
|----------------------|---------------------------------------|
| a)Lexical analysis   | i)Dead code elimination               |
| b) Syntax analysis   | ii)Type checking                      |
| c) Semantic analysis | iii)Generates Syntax tree             |
| d) code optimization | iv) Divide source program into tokens |

- A. a-iv b-iii c-i d-ii
- B. a-iv b-ii c-i d-iii
- C. a-iv b-iii c-ii d-i
- D. a-iv b-ii c-iii d-i

Ans: B

47. Type checking is done usually done by

- A. Lexical Phase
- B. Syntax analysis
- C. Semantic analysis
- D. Code optimization

Ans: C

48. Which is permanent data base in the general model of compiler

- A. Literal table
- B. Identifier table
- C. Source code
- D. Terminal Table

Ans: C

49. Which of the following not used in intermediate code form?

- A. Postfix notation
- B. Three address code
- C. Syntax trees
- D. Quadruples

Ans: C

50. The lexical analysis for a modern computer language such as Java needs the power of which one of the following machine models in a necessary and sufficient sense?

- A. Finite state automata
- B. Deterministic pushdown automata
- C. Non-Deterministic pushdown automata
- D. Turing Machine

Ans: A

51. Match all items in Group 1 with correct options from those given in Group 2.

Group 1	Group 2
P. Regular expression	1. Syntax analysis
Q. Pushdown automata	2. Code generation
R. Dataflow analysis	3. Lexical analysis
S. Register allocation	4. Code optimization
A. P-4, Q-1, R-2, S-3	
B. P-3, Q-1, R-4, S-2	
C. P-3, Q-4, R-1, S-2	
D. P-2, Q-1, R-4, S-3	

Ans: B

52. Some code optimizations are carried out on the intermediate code because

- A. they enhance the portability of the compiler to other target processors
- B. program analysis is more accurate on intermediate code than on machine code
- C. the information from dataflow analysis cannot otherwise be used for optimization
- D. the information from the front end cannot otherwise be used for optimization

Ans: A

53. Which one of the following is FALSE?

- A. A basic block is a sequence of instructions where control enters the sequence at the beginning and exits at the end
- B. Available expression analysis can be used for common subexpression elimination
- C. Live variable analysis can be used for dead code elimination
- D.  $x = 4 * 5 \Rightarrow x = 20$  is an example of common subexpression elimination

Ans: D

54. One of the purposes of using intermediate code in compilers is to

- A. make parsing and semantic analysis simpler
- B. improve error recovery and error reporting
- C. increase the chances of reusing the machine-independent code optimizer in other compilers
- D. improve the register allocation

Ans: C

55. Consider the following statements:

- (I) The output of a lexical analyzer is groups of characters.
  - (II) Total number of tokens in `printf("i=%d, &i=%x", i, &i);` are 11.
  - (III) Symbol table can be implemented by using array and hash table but not tree.
- Which of the following statement(s) is/are correct?
- A. Only (I)
  - B. Only (II) and (III)
  - C. All (I), (II), and (III)
  - D. None of these

Ans: D

56. Match all items in Group 1 with correct options from those given in Group 2.

Group 1	Group 2
A. Responsible for recognizing syntax	1. Optimizer
B. Output stream of words	2. Semantic analysis
C. Understands meanings of variables	3. Parser
D. Used to improve IR representation	4. Scanner

Code: A B C D

- A. iii iv ii i
- B. iv iii ii i
- C. ii iv i iii
- D. ii iv iii i

Ans: A

57. The number of tokens in the following C statement is `printf("i=%d, &i=%x", i&i);`

- A. 13
- B. 6
- C. 10
- D. 9

Ans: D

58. Indicate which of the following is not true about interpreter ?

- A. Interpreter generates an object program from the source program
- B. Interpreter analyses each source statement every time it is to be executed
- C. Interpreter is a kind of translator
- D. All of above

Ans: A

59. An interpreter is

- A. A program that places programs into memory and prepares them for execution

- B. A program that automate the translation of assembly language into machine language
- C. A program that accepts a program written in high level language and produces an object program
- D. Is a program that appears to execute a source program as if it were machine language

Ans: D

60. An interpreter is a program that

- A. places programs into memory and prepares them for execution
- B. automates the translation of assembly language into machine language
- C. accepts a program written in a high level language and produces an object program
- D. appears to execute a resource as if it were machine language

Ans: D

61. A programmer, by mistake writes a program to multiply two numbers instead of dividing them, how can this error be detected

- A. Compiler
- B. Interpreter
- C. Compiler or interpreter
- D. None of the above

Ans: D

62. Compilers and interpreters are themselves: \_\_\_\_\_?

- A. High-level language
- B. Codes
- C. Programs
- D. Mnemonics

Ans: C

63. A finite automata recognizes

- a) Any Language
- b) Context Sensitive Language
- c) Context Free Language
- d) Regular Language

Ans: D

64. The regular languages are not closed under

- A. Concatenation
- B. Union
- C. Kleene star
- D. Complement

Ans: D

65. In regular expressions, the operator ‘\*’ stands for

- a) Concatenation
- b) Selection
- c) Iteration
- d) Addition

Ans: c

66. Regular expressions are used to represent which language

- a) Recursive language
- b) Context free language
- c) Regular language
- d) All of the mentioned

Ans: c

67. Lexical Analyser’s Output is given to Syntax Analysis.

- a) True
- b) False

Ans: a

68. Which phase of the compiler is Lexical Analyser?

- a) First
- b) Second
- c) Third
- d) None of the mentioned

Ans: a

69. Which one is a type of Lexeme

- a) Identifiers
- b) Constants
- c) Keywords
- d) All of the mentioned

Ans: d

70. The process of forming tokens from an input stream of characters is called\_\_\_\_\_

- a) Liberalisation
- b) Characterisation
- c) Tokenization
- d) None of the mentioned

Ans: c

71. Which one is a lexer Generator

- a) ANTLR
- b) DRASTAR

- c) FLEX
- d) All of the mentioned

Ans: d

72. Select a Machine Independent phase of the compiler

- a) Syntax Analysis
- b) Intermediate Code generation
- c) Lexical Analysis
- d) All of the mentioned

Ans: d

73. Output file of Lex is \_\_\_\_\_ the input file is Myfile?

- a) Myfile.e
- b) Myfile.yy.c
- c) Myfile.lex
- d) Myfile.obj

Ans: b

74. Suppose One of the Operand is String and other is Integer then it does not throw error as it only checks whether there are two operands associated with ‘+’ or not .

- a) True
- b) False

Ans: a

75. What does a Syntactic Analyser do?

- a) Maintain Symbol Table
- b) Collect type of information
- c) Create parse tree
- d) None of the mentioned

Ans: c

76. Which of the following statement is true?

- a) Every language that is defined by regular expression can also be defined by finite automata
- b) Every language defined by finite automata can also be defined by regular expression
- c) We can convert regular expressions into finite automata
- d) All of the mentioned

Ans: d

77. YACC is a computer program for \_\_\_\_\_ operation system.

- a) Windows
- b) DOS

- c) Unix
- d) openSUSE

Ans: c

78. The YACC takes C code as input and outputs\_\_\_\_\_

- a) Top down parsers
- b) Bottom up parsers
- c) Machine code
- d) None of the mentioned

Ans :b

79. Which of the following software tool is parser generator?

- a) Lex
- b) Yacc
- c) Both of the mentioned
- d) None of the mentioned

Ans: b

80. A Lex compiler generates

- a) Lex object code
- b) Transition tables
- c) Tokens
- d) None of the mentioned

Ans: b

81. Input of Lex is ?

- A. set to regular expression
- B. statement
- C. Numeric data
- D. ASCII data

Ans: a

82. Yacc semantic action is a sequence of ?

- A. Tokens
- B. Expression
- C. C statement
- D. Rules

Ans: C

83. A compiler that runs on one machine and produces code for a different machine is called

- A. cross compilation
- B. one pass compilation
- C. two pass compilation

D. none of these

Ans: A

84. YACC stands for

- A. yet accept compiler constructs
- B. yet accept compiler compiler
- C. yet another compiler constructs
- D. yet another compiler compiler

Ans: D

85. Pee hole optimization

- A. Loop optimization
- B. Local optimization
- C. Constant folding
- D. Data flow analysis

Ans: C

86. Advantage of panic mode of error recovery is that

- A. It is simple to implement
- B. It never gets into an infinite loop
- C. Both a and b
- D. None of these

Ans: d

87. The output of lexical analyzer is

- A. A set of RE
- B. Syntax Tree
- C. Set of Tokens
- D. String Character

Ans: C

88. What is token for the lexeme “core dumped”

- A. Keywords
- B. Literals
- C. Identifiers
- D. Sentinels

Ans: B

89. Cross compiler is used in Bootstrapping.

- a) True
- b) False

Ans: a

90. Is GCC a cross Complier

a) Yes

b) No

Ans: a

91. What constitutes the stages of the compilation process?

a) Feasibility study, system, design, and testing

b) Implementation and documentation

c) Lexical analysis, syntax. Analysis and code generation

d) None of the mentioned

Ans: c

92. Which of the following is not feature of compiler?

a) Scan the entire program first and translate into machine code

b) To remove syntax errors

c) Slow for debugging

d) Execution time is more

Ans: d

93. All \_\_\_\_\_ Are automatically treated as regular expressions.

a) Programmatic description

b) Window

c) Win Object

d) Collection

Ans: a

94. In a compiler, keywords of a language are recognized during

a) Parsing of the program

b) the code generation

c) the lexical analysis of the program

d) dataflow analysis

Ans: c

95. Consider the following statements related to compiler construction :

I. Lexical Analysis is specified by context-free grammars and implemented by pushdown automata.

II. Syntax Analysis is specified by regular expressions and implemented by finite-state machine.

Which of the above statement(s) is/are correct ?

a) only I

b) only II

c) first I and II

d) neither I nor II

Ans: d

96. Which one of the following statements is FALSE?

- a) Context-free grammar can be used to specify both lexical and syntax rules.
- b) Type checking is done before parsing.
- c) High-level language programs can be translated to different Intermediate Representations
- d) Arguments to a function can be passed using the program stack.

Ans: b

## **UNIT-IV**

# **OPERATING SYSTEMS**

1. What is operating system?
  - a) collection of programs that manages hardware resources
  - b) system service provider to the application programs
  - c) link to interface the hardware and application programs
  - d) all of the mentioned

Ans: d
  
2. To access the services of operating system, the interface is provided by the \_\_\_\_\_
  - a) System calls
  - b) API
  - c) Library
  - d) Assembly instructions

Ans: a
  
3. Which one of the following is not true?
  - a) kernel is the program that constitutes the central core of the operating system
  - b) kernel is the first part of operating system to load into memory during booting
  - c) kernel is made of various modules which can not be loaded in running operating system
  - d) kernel remains in the memory during the entire computer session

Ans: c
  
4. Which one of the following error will be handling by the operating system?
  - a) power failure
  - b) lack of paper in printer
  - c) connection failure in the network
  - d) all of the mentioned

Ans: d
  
5. By operating system, the resource management can be done via \_\_\_\_\_
  - a) time division multiplexing
  - b) space division multiplexing
  - c) time and space division multiplexing
  - d) none of the mentioned

Ans: c
  
6. Which one of the following is not a real time operating system?
  - a) VxWorks
  - b) Windows CE

c) RTLinux

d) Palm OS.

Ans: d

7. The systems which allow only one process execution at a time, are called \_\_\_\_\_

a) uniprogramming systems

b) uniprocessing systems

c) unitasking systems

d) none of the mentioned

Ans: b

8. In operating system, each process has its own \_\_\_\_\_

a) address space and global variables

b) open files

c) pending alarms, signals and signal handlers

d) all of the mentioned

Ans: d

9. In Unix, Which system call creates the new process?

a) fork

b) create

c) new

d) none of the mentioned.

Ans: a

10. A process can be terminated due to \_\_\_\_\_

a) normal exit

b) fatal error

c) killed by another process

d) all of the mentioned

Ans: d

11. What is the ready state of a process?

a) when process is scheduled to run after some execution

b) when process is unable to run until some task has been completed

c) when process is using the CPU

d) none of the mentioned

Ans: a

12. What is inter process communication?

a) communication within the process

b) communication between two process

c) communication between two threads of same process

d) none of the mentioned

Ans: b

13. A set of processes is deadlock if \_\_\_\_\_

- a) each process is blocked and will remain so forever
- b) each process is terminated
- c) all processes are trying to kill each other
- d) none of the mentioned

Ans: a

14. A process stack does not contain \_\_\_\_\_

- a) Function parameters
- b) Local variables
- c) Return addresses
- d) PID of child process

Ans: d

15. The address of the next instruction to be executed by the current process is provided by the \_\_\_\_\_

- a) CPU registers
- b) Program counter
- c) Process stack
- d) Pipe.

Ans: b

16. A Process Control Block(PCB) does not contain which of the following?

- a) Code
- b) Stack
- c) Bootstrap program
- d) Data

Ans: c

17. The number of processes completed per unit time is known as \_\_\_\_\_

- a) Output
- b) Throughput
- c) Efficiency
- d) Capacity

Ans: b

18. The state of a process is defined by \_\_\_\_\_

- a) the final activity of the process
- b) the activity just executed by the process
- c) the activity to next be executed by the process
- d) the current activity of the process

Ans: d

19. Which of the following is not the state of a process?

- a) New
- b) Old
- c) Waiting
- d) Running

Ans: b

20. What is a Process Control Block?

- a) Process type variable
- b) Data Structure
- c) A secondary storage section
- d) A Block in memory

Ans: b

21. The entry of all the PCBs of the current processes is in \_\_\_\_\_

- a) Process Register
- b) Program Counter
- c) Process Table
- d) Process Unit

Ans: c

22. What is the degree of multiprogramming?

- a) the number of processes executed per unit time
- b) the number of processes in the ready queue
- c) the number of processes in the I/O queue
- d) the number of processes in memory

Ans: d

23. A single thread of control allows the process to perform \_\_\_\_\_

- a) only one task at a time
- b) multiple tasks at a time
- c) only two tasks at a time
- d) all of the mentioned

Ans: a

24. What is the objective of multiprogramming?

- a) Have some process running at all times
- b) Have multiple programs waiting in a queue ready to run
- c) To minimize CPU utilization
- d) None of the mentioned

Ans: a

25. What is a short-term scheduler?

- a) It selects which process has to be brought into the ready queue

- b) It selects which process has to be executed next and allocates CPU
- c) It selects which process to remove from memory by swapping
- d) None of the mentioned

Ans: b

26. Which of the following do not belong to queues for processes?

- a) Job Queue
- b) PCB queue
- c) Device Queue
- d) Ready Queue

Ans: b

27. When the process issues an I/O request \_\_\_\_\_

- a) It is placed in an I/O queue
- b) It is placed in a waiting queue
- c) It is placed in the ready queue
- d) It is placed in the Job queue

Ans: a

28. What will happen when a process terminates?

- a) It is removed from all queues
- b) It is removed from all, but the job queue
- c) Its process control block is de-allocated
- d) Its process control block is never de-allocated

Ans: a

29. What is a long-term scheduler?

- a) It selects which process has to be brought into the ready queue
- b) It selects which process has to be executed next and allocates CPU
- c) It selects which process to remove from memory by swapping
- d) None of the mentioned

Ans: a

30. If all processes I/O bound, the ready queue will almost always be \_\_\_\_\_ and the Short term Scheduler will have a \_\_\_\_\_ to do.

- a) full, little
- b) full, lot
- c) empty, little
- d) empty, lot

Ans: c

31. What is a medium-term scheduler?

- a) It selects which process has to be brought into the ready queue
- b) It selects which process has to be executed next and allocates CPU

- c) It selects which process to remove from memory by swapping
- d) None of the mentioned

Ans: c

32. The primary distinction between the short term scheduler and the long term scheduler is \_\_\_\_\_

- a) The length of their queues
- b) The type of processes they schedule
- c) The frequency of their execution
- d) None of the mentioned

Ans: c

33. The only state transition that is initiated by the user process itself is \_\_\_\_\_

- a) block
- b) wakeup
- c) dispatch
- d) none of the mentioned

Ans: a

34. In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the running state to the \_\_\_\_\_

- a) Blocked state
- b) Ready state
- c) Suspended state
- d) Terminated state

Ans: b

35. In a multiprogramming environment \_\_\_\_\_

- a) the processor executes more than one process at a time
- b) the programs are developed by more than one person
- c) more than one process resides in the memory
- d) a single user can execute many programs at the same time

Ans: c

36. Suppose that a process is in “Blocked” state waiting for some I/O service. When the service is completed, it goes to the \_\_\_\_\_

- a) Running state
- b) Ready state
- c) Suspended state
- d) Terminated state

Ans: b

37. The context of a process in the PCB of a process does not contain \_\_\_\_\_

- a) the value of the CPU registers

- b) the process state
- c) memory-management information
- d) context switch time

Ans: d

38. Which of the following need not necessarily be saved on a context switch between processes?

- a) General purpose registers
- b) Translation look aside buffer
- c) Program counter
- d) All of the mentioned

Ans: b

39. Which of the following does not interrupt a running process?

- a) A device
- b) Timer
- c) Scheduler process
- d) Power failure

Ans: c

40. Which process can be affected by other processes executing in the system?

- a) cooperating process
- b) child process
- c) parent process
- d) init process

Ans: a

41. When several processes access the same data concurrently and the outcome of the execution depends on the particular order in which the access takes place, is called?

- a) dynamic condition
- b) race condition
- c) essential condition
- d) critical condition

Ans: b

42. If a process is executing in its critical section, then no other processes can be executing in their critical section. This condition is called?

- a) mutual exclusion
- b) critical exclusion
- c) synchronous exclusion
- d) asynchronous exclusion

Ans: a

43. Mutual exclusion can be provided by the \_\_\_\_\_

- a) mutex locks
- b) binary semaphores
- c) both mutex locks and binary semaphores
- d) none of the mentioned

Ans: c

44. When high priority task is indirectly preempted by medium priority task effectively inverting the relative priority of the two tasks, the scenario is called \_\_\_\_\_

- a) priority inversion
- b) priority removal
- c) priority exchange
- d) priority modification

Ans: a

45. Process synchronization can be done on \_\_\_\_\_

- a) hardware level
- b) software level
- c) both hardware and software level
- d) none of the mentioned

Ans: c

46. With \_\_\_\_\_ only one process can execute at a time; meanwhile all other process are waiting for the processor. With \_\_\_\_\_ more than one process can be running simultaneously each on a different processor.

- a) Multiprocessing, Multiprogramming
- b) Multiprogramming, Uniprocessing
- c) Multiprogramming, Multiprocessing
- d) Uniprogramming, Multiprocessing

Ans: d

47. In UNIX, each process is identified by its \_\_\_\_\_

- a) Process Control Block
- b) Device Queue
- c) Process Identifier
- d) None of the mentioned

Ans: c

48. In UNIX, the return value for the fork system call is \_\_\_\_\_ for the child process and \_\_\_\_\_ for the parent process.

- a) A Negative integer, Zero
- b) Zero, A Negative integer
- c) Zero, A nonzero integer
- d) A nonzero integer, Zero

Ans: c

49. The child process can \_\_\_\_\_

- a) be a duplicate of the parent process
- b) never be a duplicate of the parent process
- c) cannot have another program loaded into it
- d) never have another program loaded into it

Ans: a

50. What is Inter process communication?

- a) allows processes to communicate and synchronize their actions when using the same address space
- b) allows processes to communicate and synchronize their actions without using the same address space
- c) allows the processes to only synchronize their actions without communication
- d) none of the mentioned

Ans: b

51. Message passing system allows processes to \_\_\_\_\_

- a) communicate with one another without resorting to shared data
- b) communicate with one another by resorting to shared data
- c) share data
- d) name the recipient or sender of the message

Ans: a

52. Which of the following two operations are provided by the IPC facility?

- a) write & delete message
- b) delete & receive message
- c) send & delete message
- d) receive & send message

Ans: d

53. Messages sent by a process \_\_\_\_\_

- a) have to be of a fixed size
- b) have to be a variable size
- c) can be fixed or variable sized
- d) None of the mentioned

Ans: c

54. The link between two processes P and Q to send and receive messages is called

- 
- a) communication link
  - b) message-passing link

- c) synchronization link
- d) all of the mentioned

Ans: a

55. Which module gives control of the CPU to the process selected by the short-term scheduler?

- a) dispatcher
- b) interrupt
- c) scheduler
- d) none of the mentioned

Ans: a

56. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called \_\_\_\_\_

- a) job queue
- b) ready queue
- c) execution queue
- d) process queue.

Ans: b

57. The interval from the time of submission of a process to the time of completion is termed as \_\_\_\_\_

- a) waiting time
- b) turnaround time
- c) response time
- d) throughput

Ans: b

58. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?

- a) first-come, first-served scheduling
- b) shortest job scheduling
- c) priority scheduling
- d) none of the mentioned

Ans: a

59. In priority scheduling algorithm \_\_\_\_\_

- a) CPU is allocated to the process with highest priority
- b) CPU is allocated to the process with lowest priority
- c) Equal priority processes can not be scheduled
- d) None of the mentioned.

Ans: a

60. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of \_\_\_\_\_

- a) all process
- b) currently running process
- c) parent process
- d) init process

Ans: b

61. Which algorithm is defined in Time quantum?

- a) shortest job scheduling algorithm
- b) round robin scheduling algorithm
- c) priority scheduling algorithm
- d) multilevel queue scheduling algorithm

Ans: b

62. Process are classified into different groups in \_\_\_\_\_

- a) shortest job scheduling algorithm
- b) round robin scheduling algorithm
- c) priority scheduling algorithm
- d) multilevel queue scheduling algorithm

Ans: d

63. In multilevel feedback scheduling algorithm \_\_\_\_\_

- a) a process can move to a different classified ready queue
- b) classification of ready queue is permanent
- c) processes are not classified into groups
- d) none of the mentioned

Ans: a

64. CPU scheduling is the basis of \_\_\_\_\_

- a) multiprocessor systems
- b) multiprogramming operating systems
- c) larger memory sized systems
- d) none of the mentioned

Ans: b

65. With multiprogramming \_\_\_\_\_ is used productively.

- a) time
- b) space
- c) money
- d) all of the mentioned

Ans: a

66. What are the two steps of a process execution?

- a) I/O & OS Burst
- b) CPU & I/O Burst
- c) Memory & I/O Burst
- d) OS & Memory Burst

Ans: b

67. An I/O bound program will typically have \_\_\_\_\_

- a) a few very short CPU bursts
- b) many very short I/O bursts
- c) many very short CPU bursts
- d) a few very short I/O bursts

Ans: c

68. A process is selected from the \_\_\_\_\_ queue by the \_\_\_\_\_ scheduler, to be executed.

- a) blocked, short term
- b) wait, long term
- c) ready, short term
- d) ready, long term

Ans: c

69. In the following cases non – preemptive scheduling occurs?

- a) When a process switches from the running state to the ready state
- b) When a process goes from the running state to the waiting state
- c) When a process switches from the waiting state to the ready state
- d) All of the mentioned

Ans: b

70. The switching of the CPU from one process or thread to another is called \_\_\_\_\_

- a) process switch
- b) task switch
- c) context switch
- d) all of the mentioned

Ans: d

71. What is Dispatch latency?

- a) the speed of dispatching a process from running to the ready state
- b) the time of dispatching a process from running to ready state and keeping the CPU idle
- c) the time to stop one process and start running another one
- d) none of the mentioned

Ans: c

72. Scheduling is done so as to \_\_\_\_\_

- a) increase CPU utilization
- b) decrease CPU utilization
- c) keep the CPU more idle
- d) none of the mentioned

Ans: a

73. Scheduling is done so as to \_\_\_\_\_

- a) increase the throughput
- b) decrease the throughput
- c) increase the duration of a specific amount of work
- d) none of the mentioned

Ans: a

74. What is Turnaround time?

- a) the total waiting time for a process to finish execution
- b) the total time spent in the ready queue
- c) the total time spent in the running queue
- d) the total time from the completion till the submission of a process

Ans: d

75. Scheduling is done so as to \_\_\_\_\_

- a) increase the turnaround time
- b) decrease the turnaround time
- c) keep the turnaround time same
- d) there is no relation between scheduling and turnaround time

Ans: b

76. What is Waiting time?

- a) the total time in the blocked and waiting queues
- b) the total time spent in the ready queue
- c) the total time spent in the running queue
- d) the total time from the completion till the submission of a process

Ans: b

77. Scheduling is done so as to \_\_\_\_\_

- a) increase the waiting time
- b) keep the waiting time the same
- c) decrease the waiting time
- d) none of the mentioned

Ans: c

78. What is Response time?

- a) the total time taken from the submission time till the completion time

- b) the total time taken from the submission time till the first response is produced
- c) the total time taken from submission time till the response is output
- d) none of the mentioned

Ans: b

79. Round robin scheduling falls under the category of \_\_\_\_\_

- a) Non-preemptive scheduling
- b) Preemptive scheduling
- c) All of the mentioned
- d) None of the mentioned

Ans: b

80. With round robin scheduling algorithm in a time shared system \_\_\_\_\_

- a) using very large time slices converts it into First come First served scheduling algorithm
- b) using very small time slices converts it into First come First served scheduling algorithm
- c) using extremely small time slices increases performance
- d) using very small time slices converts it into Shortest Job First algorithm

Ans: a

81. The portion of the process scheduler in an operating system that dispatches processes is concerned with \_\_\_\_\_

- a) assigning ready processes to CPU
- b) assigning ready processes to waiting queue
- c) assigning running processes to blocked queue
- d) all of the mentioned

Ans: a

82. Complex scheduling algorithms \_\_\_\_\_

- a) are very appropriate for very large computers
- b) use minimal resources
- c) use many resources
- d) all of the mentioned

Ans: a

83. What is FIFO algorithm?

- a) first executes the job that came in last in the queue
- b) first executes the job that came in first in the queue
- c) first executes the job that needs minimal processor
- d) first executes the job that has maximum processor needs

Ans:b

84. The strategy of making processes that are logically runnable to be temporarily suspended is called \_\_\_\_\_

- a) Non preemptive scheduling
- b) Preemptive scheduling
- c) Shortest job first
- d) First come First served

Ans: b

85. What is Scheduling?

- a) allowing a job to use the processor
- b) making proper use of processor
- c) all of the mentioned
- d) none of the mentioned

Ans: a

86. There are 10 different processes running on a workstation. Idle processes are waiting for an input event in the input queue. Busy processes are scheduled with the Round-Robin time sharing method. Which out of the following quantum times is the best value for small response times, if the processes have a short runtime, e.g. less than 10ms?

- a)  $tQ = 15\text{ms}$
- b)  $tQ = 40\text{ms}$
- c)  $tQ = 45\text{ms}$
- d)  $tQ = 50\text{ms}$ .

Ans: a

87. Orders are processed in the sequence they arrive if \_\_\_\_\_ rule sequences the jobs.

- a) earliest due date
- b) slack time remaining
- c) first come, first served
- d) critical ratio

Ans: c

88. Which of the following algorithms tends to minimize the process flow time?

- a) First come First served
- b) Shortest Job First
- c) Earliest Deadline First
- d) Longest Job First

Ans: b

89. Under multiprogramming, turnaround time for short jobs is usually \_\_\_\_\_ and that for long jobs is slightly \_\_\_\_\_

- a) Lengthened; Shortened
- b) Shortened; Lengthened

- c) Shortened; Shortened
- d) Shortened; Unchanged

Ans: b

90. Which of the following statements are true?

- I. Shortest remaining time first scheduling may cause starvation
- II. Preemptive scheduling may cause starvation
- III. Round robin is better than FCFS in terms of response time

- a) I only
- b) I and III only
- c) II and III only
- d) I, II and III

Ans: d

91. Which is the most optimal scheduling algorithm?

- a) FCFS – First come First served
- b) SJF – Shortest Job First
- c) RR – Round Robin
- d) None of the mentioned

Ans: b

92. The real difficulty with SJF in short term scheduling is \_\_\_\_\_

- a) it is too good an algorithm
- b) knowing the length of the next CPU request
- c) it is too complex to understand
- d) none of the mentioned

Ans: b

93. The FCFS algorithm is particularly troublesome for \_\_\_\_\_

- a) time sharing systems
- b) multiprogramming systems
- c) multiprocessor systems
- d) operating systems

Ans: b

94. Consider the following set of processes, the length of the CPU burst time given in milliseconds.

Process      Burst time

P1	6
P2	8
P3	7
P4	3

Assuming the above process being scheduled with the SJF scheduling algorithm.

- a) The waiting time for process P1 is 3ms
- b) The waiting time for process P1 is 0ms
- c) The waiting time for process P1 is 16ms
- d) The waiting time for process P1 is 9ms

Ans: a

95. An SJF algorithm is simply a priority algorithm where the priority is \_\_\_\_\_

- a) the predicted next CPU burst
- b) the inverse of the predicted next CPU burst
- c) the current CPU burst
- d) anything the user wants

Ans: a

96. Choose one of the disadvantages of the priority scheduling algorithm?

- a) it schedules in a very complex manner
- b) its scheduling takes up a lot of time
- c) it can lead to some low priority process waiting indefinitely for the CPU
- d) none of the mentioned

Ans: c

97. Which of the following scheduling algorithms gives minimum average waiting time?

- a) FCFS
- b) SJF
- c) Round – robin
- d) Priority

Ans: b

98. Mutual exclusion implies that \_\_\_\_\_

- a) if a process is executing in its critical section, then no other process must be executing in their critical sections
- b) if a process is executing in its critical section, then other processes must be executing in their critical sections
- c) if a process is executing in its critical section, then all the resources of the system must be blocked until it finishes execution
- d) none of the mentioned

Ans: a

99. Which of the following condition is required for a deadlock to be possible?

- a) mutual exclusion
- b) a process may hold allocated resources while awaiting assignment of other resources

- c) no resource can be forcibly removed from a process holding it
- d) all of the mentioned

Ans: d

100. A system is in the safe state if \_\_\_\_\_
- a) the system can allocate resources to each process in some order and still avoid a deadlock
  - b) there exist a safe sequence
  - c) all of the mentioned
  - d) none of the mentioned

Ans: a

101. The circular wait condition can be prevented by \_\_\_\_\_
- a) defining a linear ordering of resource types
  - b) using thread
  - c) using pipes
  - d) all of the mentioned

Ans: a

102. Which one of the following is the deadlock avoidance algorithm?
- a) banker's algorithm
  - b) round-robin algorithm
  - c) elevator algorithm
  - d) karn's algorithm

Ans: a

103. What is the drawback of banker's algorithm?
- a) in advance processes rarely know how much resource they will need
  - b) the number of processes changes as time progresses
  - c) resource once available can disappear
  - d) all of the mentioned

Ans: d

104. For an effective operating system, when to check for deadlock?
- a) every time a resource request is made
  - b) at fixed time intervals
  - c) every time a resource request is made at fixed time intervals
  - d) none of the mentioned

Ans: c

105. A problem encountered in multitasking when a process is perpetually denied necessary resources is called \_\_\_\_\_
- a) deadlock
  - b) starvation

c) inversion

d) aging

Ans: b

106. Which one of the following is a visual ( mathematical ) way to determine the deadlock occurrence?

a) resource allocation graph

b) starvation graph

c) inversion graph

d) none of the mentioned

Ans: a

107. To avoid deadlock \_\_\_\_\_

a) there must be a fixed number of resources to allocate

b) resource allocation must be done only once

c) all deadlocked processes must be aborted

d) inversion technique can be used

Ans: a

108. The number of resources requested by a process \_\_\_\_\_

a) must always be less than the total number of resources available in the system

b) must always be equal to the total number of resources available in the system

c) must not exceed the total number of resources available in the system

d) must exceed the total number of resources available in the system

Ans: c

109. The request and release of resources are \_\_\_\_\_

a) command line statements

b) interrupts

c) system calls

d) special programs

Ans: c

110. For a deadlock to arise, which of the following conditions must hold simultaneously?

a) Mutual exclusion

b) No preemption

c) Hold and wait

d) All of the mentioned

Ans: d

111. For Mutual exclusion to prevail in the system \_\_\_\_\_

a) at least one resource must be held in a non sharable mode

b) the processor must be a uniprocessor rather than a multiprocessor

- c) there must be at least one resource in a sharable mode
- d) all of the mentioned

Ans: a

112. For a Hold and wait condition to prevail \_\_\_\_\_
- a) A process must be not be holding a resource, but waiting for one to be freed, and then request to acquire it
  - b) A process must be holding at least one resource and waiting to acquire additional resources that are being held by other processes
  - c) A process must hold at least one resource and not be waiting to acquire additional resources
  - d) None of the mentioned

Ans: b

113. Deadlock prevention is a set of methods \_\_\_\_\_
- a) to ensure that at least one of the necessary conditions cannot hold
  - b) to ensure that all of the necessary conditions do not hold
  - c) to decide if the requested resources for a process have to be given or not
  - d) to recover from a deadlock

Ans: a

114. For non sharable resources like a printer, mutual exclusion \_\_\_\_\_
- a) must exist
  - b) must not exist
  - c) may exist
  - d) none of the mentioned

Ans: a

115. For sharable resources, mutual exclusion \_\_\_\_\_
- a) is required
  - b) is not required
  - c) may be or may not be required
  - d) none of the mentioned

Ans: b

116. To ensure that the hold and wait condition never occurs in the system, it must be ensured that \_\_\_\_\_
- a) whenever a resource is requested by a process, it is not holding any other resources
  - b) each process must request and be allocated all its resources before it begins its execution
  - c) a process can request resources only when it has none
  - d) all of the mentioned

Ans: d

117. The disadvantage of a process being allocated all its resources before beginning its execution is \_\_\_\_\_

- a) Low CPU utilization
- b) Low resource utilization
- c) Very high resource utilization
- d) None of the mentioned

Ans: b

118. To ensure no preemption, if a process is holding some resources and requests another resource that cannot be immediately allocated to it \_\_\_\_\_

- a) then the process waits for the resources be allocated to it
- b) the process keeps sending requests until the resource is allocated to it
- c) the process resumes execution without the resource being allocated to it
- d) then all resources currently being held are pre-empted

Ans: d

119. One way to ensure that the circular wait condition never holds is to \_\_\_\_\_

- a) impose a total ordering of all resource types and to determine whether one precedes another in the ordering
- b) to never let a process acquire resources that are held by other processes
- c) to let a process wait for only one resource at a time
- d) all of the mentioned

Ans: a

120. Each request requires that the system consider the \_\_\_\_\_ to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.

- a) resources currently available
- b) processes that have previously been in the system
- c) resources currently allocated to each process
- d) future requests and releases of each process

Ans: a

121. Given a priori information about the \_\_\_\_\_ number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.

- a) minimum
- b) average
- c) maximum
- d) approximate

Ans: c

122. A deadlock avoidance algorithm dynamically examines the \_\_\_\_\_ to ensure that a circular wait condition can never exist.

- a) resource allocation state

- b) system storage state
- c) operating system
- d) resources

Ans: a

123. A state is safe, if \_\_\_\_\_

- a) the system does not crash due to deadlock occurrence
- b) the system can allocate resources to each process in some order and still avoid a deadlock
- c) the state keeps the system protected and safe
- d) all of the mentioned

Ans: b

124. A system is in a safe state only if there exists a \_\_\_\_\_

- a) safe allocation
- b) safe resource
- c) safe sequence
- d) all of the mentioned

Ans: c

125. All unsafe states are \_\_\_\_\_

- a) deadlocks
- b) not deadlocks
- c) fatal
- d) none of the mentioned

Ans: b

126. A system has 12 magnetic tape drives and 3 processes : P0, P1, and P2.

Process P0 requires 10 tape drives, P1 requires 4 and P2 requires 9 tape drives.

Process

P0

P1

P2

Maximum needs (process-wise: P0 through P2 top to bottom)

10

4

9

Currently allocated (process-wise)

5

2

2

Which of the following sequence is a safe sequence?

- a) P0, P1, P2
- b) P1, P2, P0

- c) P2, P0, P1
- d) P1, P0, P2

Ans: d

127. If no cycle exists in the resource allocation graph \_\_\_\_\_

- a) then the system will not be in a safe state
- b) then the system will be in a safe state
- c) all of the mentioned
- d) none of the mentioned

Ans: b

128. The resource allocation graph is not applicable to a resource allocation system \_\_\_\_\_

- a) with multiple instances of each resource type
- b) with a single instance of each resource type
- c) single & multiple instances of each resource type
- d) none of the mentioned

Ans: a

129. The Banker's algorithm is \_\_\_\_\_ than the resource allocation graph algorithm.

- a) less efficient
- b) more efficient
- c) equal
- d) none of the mentioned

Ans: a

130. The data structures available in the Banker's algorithm are \_\_\_\_\_

- a) Available
- b) Need
- c) Allocation
- d) All of the mentioned

Ans: d

131. The content of the matrix Need is \_\_\_\_\_

- a) Allocation – Available
- b) Max – Available
- c) Max – Allocation
- d) Allocation – Max

Ans: c

132. A system with 5 processes P0 through P4 and three resource types A, B, C have A with 10 instances, B with 5 instances, and C with 7 instances. At time t0, the following snapshot has been taken:

Process  
P0  
P1  
P2  
P3  
P4

Allocation (process-wise : P0 through P4 top TO bottom)

A	B	C
0	1	0
2	0	0
3	0	2
2	1	1
0	0	2

MAX (process-wise: P0 through P4 top TO bottom)

A	B	C
7	5	3
3	2	2
9	0	2
2	2	2
4	3	3

Available

A	B	C
3	3	2

The sequence <P1, P3, P4, P2, P0> leads the system to \_\_\_\_\_

- a) an unsafe state
- b) a safe state
- c) a protected state
- d) a deadlock

Ans: b

133. The wait-for graph is a deadlock detection algorithm that is applicable when \_\_\_\_\_

- a) all resources have a single instance
- b) all resources have multiple instances
- c) all resources have a single or multiple instances
- d) all of the mentioned

Ans: a

134. An edge from process Pi to Pj in a wait for graph indicates that \_\_\_\_\_

- a) Pi is waiting for Pj to release a resource that Pi needs
- b) Pj is waiting for Pi to release a resource that Pj needs
- c) Pi is waiting for Pj to leave the system
- d) Pj is waiting for Pi to leave the system

Ans: a

135. If the wait for graph contains a cycle \_\_\_\_\_

- a) then a deadlock does not exist
- b) then a deadlock exists
- c) then the system is in a safe state
- d) either deadlock exists or system is in a safe state

Ans: b

136. If deadlocks occur frequently, the detection algorithm must be invoked \_\_\_\_\_

- a) rarely
- b) frequently
- c) rarely & frequently
- d) none of the mentioned

Ans: b

137. What is the disadvantage of invoking the detection algorithm for every request?

- a) overhead of the detection algorithm due to consumption of memory
- b) excessive time consumed in the request to be allocated memory
- c) considerable overhead in computation time
- d) all of the mentioned

Ans: c

138. A deadlock eventually cripples system throughput and will cause the CPU utilization to \_\_\_\_\_

- a) increase
- b) drop
- c) stay still
- d) none of the mentioned

Ans: b

139. Every time a request for allocation cannot be granted immediately, the detection algorithm is invoked. This will help identify \_\_\_\_\_

- a) the set of processes that have been deadlocked
- b) the set of processes in the deadlock queue
- c) the specific process that caused the deadlock
- d) all of the mentioned

Ans: a

140. A computer system has 6 tape drives, with 'n' processes competing for them. Each process may need 3 tape drives. The maximum value of 'n' for which the system is guaranteed to be deadlock free is?

a) 2

b) 3

c) 4

d) 1

Ans: 2

141. A system has 3 processes sharing 4 resources. If each process needs a maximum of 2 units then, deadlock \_\_\_\_\_

a) can never occur

b) may occur

c) has to occur

d) none of the mentioned

Ans: a

142. 'm' processes share 'n' resources of the same type. The maximum need of each process doesn't exceed 'n' and the sum of all their maximum needs is always less than  $m+n$ . In this setup, deadlock \_\_\_\_\_

a) can never occur

b) may occur

c) has to occur

d) none of the mentioned

Ans: a

143. A deadlock can be broken by \_\_\_\_\_

a) abort one or more processes to break the circular wait

b) abort all the process in the system

c) pre-empt all resources from all processes

d) none of the mentioned

Ans: a

144. The two ways of aborting processes and eliminating deadlocks are \_\_\_\_\_

a) Abort all deadlocked processes

b) Abort all processes

c) Abort one process at a time until the deadlock cycle is eliminated

d) All of the mentioned

Ans: c

145. Those processes should be aborted on occurrence of a deadlock, the termination of which?

a) is more time consuming

b) incurs minimum cost

c) safety is not hampered

d) all of the mentioned

Ans: b

146. The process to be aborted is chosen on the basis of the following factors?

- a) priority of the process
- b) process is interactive or batch
- c) how long the process has computed
- d) all of the mentioned

Ans: d

147. Cost factors for process termination include \_\_\_\_\_

- a) Number of resources the deadlock process is not holding
- b) CPU utilization at the time of deadlock
- c) Amount of time a deadlocked process has thus far consumed during its execution
- d) All of the mentioned

Ans: c

148. If we preempt a resource from a process, the process cannot continue with its normal execution and it must be \_\_\_\_\_

- a) aborted
- b) rolled back
- c) terminated
- d) queued

Ans: b

149. To \_\_\_\_\_ to a safe state, the system needs to keep more information about the states of processes.

- a) abort the process
- b) roll back the process
- c) queue the process
- d) none of the mentioned

Ans: b

150. If the resources are always preempted from the same process \_\_\_\_\_ can occur.

- a) deadlock
- b) system crash
- c) aging
- d) starvation

Ans: d

151. **Which of the following is NOT a valid deadlock prevention scheme?**

- (a) Release all resources before requesting a new resource
- (b) Number the resources uniquely and never request a lower numbered resource than the last one requested.

- (c) Never request a resource after releasing any resource
- (d) Request and all required resources be allocated before execution.

Ans: c

152. consider the 3 processes, P1, P2 and P3 shown in the table

Process	Arrival time	Time unit required
P1	0	5
P2	1	7
P3	3	4

The completion order of the 3 processes under the policies FCFS and RRS (round robin scheduling with CPU quantum of 2 time units) are

- (A) FCFS: P1, P2, P3 RRS: P1, P2, P3
- (B) FCFS: P1, P3, P2 RRS: P1, P3, P2
- (C) FCFS: P1, P2, P3 RRS: P1, P3, P2
- (D) FCFS: P1, P3, P2 RRS: P1, P2, P3

Ans: c

153. Consider a set of n tasks with known runtimes r1, r2, ... rn to be run on a uniprocessor machine. Which of the following processor scheduling algorithms will result in the maximum throughput?

- (a) Round-Robin
- (b) Shortest-Job-First
- (c) Highest-Response-Ratio-Next
- (d) First-Come-First-Served

Ans: B

154. Consider the following table of arrival time and burst time for three processes P0, P1 and P2.

Process	Arrival time	Burst Time
P0	0 ms	9 ms
P1	1 ms	4 ms
P2	2 ms	9 ms

The pre-emptive shortest job first scheduling algorithm is used. Scheduling is carried out only at arrival or completion of processes. What is the average waiting time for the three processes?

- (A) 5.0 ms
- (B) 4.33 ms
- (C) 6.33 ms
- (D) 7.33 ms

Ans: a

(Explanation: Process P0 is allocated processor at 0 ms as there is no other process in ready queue. P0 is preempted after 1 ms as P1 arrives at 1 ms and burst time for P1 is less than remaining time of P0. P1 runs for 4ms. P2 arrived at 2 ms but P1 continued as burst time of P2 is longer than P1. After P1 completes, P0 is scheduled again as the remaining time for P0 is less than the burst time of P2. P0 waits for 4 ms, P1 waits for 0 ms and P2 waits for 11 ms. So average waiting time is  $(0+4+11)/3 = 5$ .)

155. In which one of the following page replacement policies, Belady's anomaly may occur?

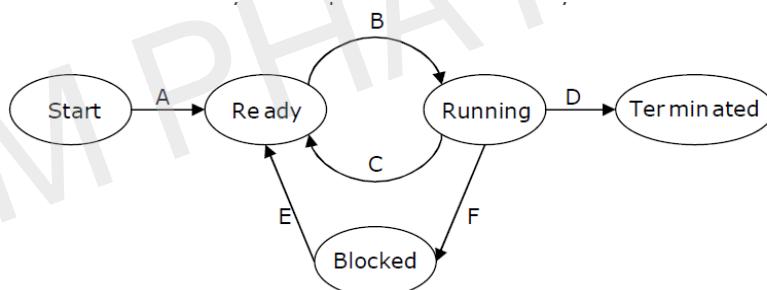
- (A) FIFO
- (B) Optimal
- (C) LRU
- (D) MRU

Ans: A

(Explanation: Belady's anomaly proves that it is possible to have more page faults when increasing the number of page frames while using the First in First Out (FIFO) page replacement algorithm.)

156.

In the following process state transition diagram for a uniprocessor system, assume that there are always some processes in the ready state: Now consider the following statements:



I. If a process makes a transition D, it would result in another process making transition A immediately.

II. A process P2 in blocked state can make transition E while another process P1 is in running state.

III. The OS uses preemptive scheduling.

IV. The OS uses non-preemptive scheduling.

Which of the above statements are TRUE?

- (A) I and II
- (B) I and III
- (C) II and III
- (D) II and IV

Ans: C

(Explanation: I is false. If a process makes a transition D, it would result in another process making transition B, not A.

II is true. A process can move to ready state when I/O completes irrespective of other process being in running state or not.

III is true because there is a transition from running to ready state.

IV is false as the OS uses preemptive scheduling.)

**157. Which of the following is NOT true of deadlock prevention and deadlock avoidance schemes?**

- (A) In deadlock prevention, the request for resources is always granted if the resulting state is safe
- (B) In deadlock avoidance, the request for resources is always granted if the result state is safe
- (C) Deadlock avoidance is less restrictive than deadlock prevention
- (D) Deadlock avoidance requires knowledge of resource requirements a priori

Ans: A

(Explanation: Deadlock prevention scheme handles deadlock by making sure that one of the four necessary conditions don't occur. In deadlock prevention, the request for a resource may not be granted even if the resulting state is safe.)

**158. Scheduling is done so as to :**

- A. increase the turnaround time
- B. decrease the turnaround time
- C. keep the turnaround time same
- D. there is no relation between scheduling and turnaround time

Ans: B

**159. Waiting time is :**

- A. the total time in the blocked and waiting queues
- B. the total time spent in the ready queue
- C. the total time spent in the running queue
- D. the total time from the completion till the submission of a process

Ans: B

## **UNIT-IV**

# **OPERATING SYSTEMS**

1. What is operating system?
  - a) collection of programs that manages hardware resources
  - b) system service provider to the application programs
  - c) link to interface the hardware and application programs
  - d) all of the mentioned

Ans: d
  
2. To access the services of operating system, the interface is provided by the \_\_\_\_\_
  - a) System calls
  - b) API
  - c) Library
  - d) Assembly instructions

Ans: a
  
3. Which one of the following is not true?
  - a) kernel is the program that constitutes the central core of the operating system
  - b) kernel is the first part of operating system to load into memory during booting
  - c) kernel is made of various modules which can not be loaded in running operating system
  - d) kernel remains in the memory during the entire computer session

Ans: c
  
4. Which one of the following error will be handling by the operating system?
  - a) power failure
  - b) lack of paper in printer
  - c) connection failure in the network
  - d) all of the mentioned

Ans: d
  
5. By operating system, the resource management can be done via \_\_\_\_\_
  - a) time division multiplexing
  - b) space division multiplexing
  - c) time and space division multiplexing
  - d) none of the mentioned

Ans: c
  
6. Which one of the following is not a real time operating system?
  - a) VxWorks
  - b) Windows CE

c) RTLinux

d) Palm OS.

Ans: d

7. The systems which allow only one process execution at a time, are called \_\_\_\_\_

a) uniprogramming systems

b) uniprocessing systems

c) unitasking systems

d) none of the mentioned

Ans: b

8. In operating system, each process has its own \_\_\_\_\_

a) address space and global variables

b) open files

c) pending alarms, signals and signal handlers

d) all of the mentioned

Ans: d

9. In Unix, Which system call creates the new process?

a) fork

b) create

c) new

d) none of the mentioned.

Ans: a

10. A process can be terminated due to \_\_\_\_\_

a) normal exit

b) fatal error

c) killed by another process

d) all of the mentioned

Ans: d

11. What is the ready state of a process?

a) when process is scheduled to run after some execution

b) when process is unable to run until some task has been completed

c) when process is using the CPU

d) none of the mentioned

Ans: a

12. What is inter process communication?

a) communication within the process

b) communication between two process

c) communication between two threads of same process

d) none of the mentioned

Ans: b

13. A set of processes is deadlock if \_\_\_\_\_

- a) each process is blocked and will remain so forever
- b) each process is terminated
- c) all processes are trying to kill each other
- d) none of the mentioned

Ans: a

14. A process stack does not contain \_\_\_\_\_

- a) Function parameters
- b) Local variables
- c) Return addresses
- d) PID of child process

Ans: d

15. The address of the next instruction to be executed by the current process is provided by the \_\_\_\_\_

- a) CPU registers
- b) Program counter
- c) Process stack
- d) Pipe.

Ans: b

16. A Process Control Block(PCB) does not contain which of the following?

- a) Code
- b) Stack
- c) Bootstrap program
- d) Data

Ans: c

17. The number of processes completed per unit time is known as \_\_\_\_\_

- a) Output
- b) Throughput
- c) Efficiency
- d) Capacity

Ans: b

18. The state of a process is defined by \_\_\_\_\_

- a) the final activity of the process
- b) the activity just executed by the process
- c) the activity to next be executed by the process
- d) the current activity of the process

Ans: d

19. Which of the following is not the state of a process?

- a) New
- b) Old
- c) Waiting
- d) Running

Ans: b

20. What is a Process Control Block?

- a) Process type variable
- b) Data Structure
- c) A secondary storage section
- d) A Block in memory

Ans: b

21. The entry of all the PCBs of the current processes is in \_\_\_\_\_

- a) Process Register
- b) Program Counter
- c) Process Table
- d) Process Unit

Ans: c

22. What is the degree of multiprogramming?

- a) the number of processes executed per unit time
- b) the number of processes in the ready queue
- c) the number of processes in the I/O queue
- d) the number of processes in memory

Ans: d

23. A single thread of control allows the process to perform \_\_\_\_\_

- a) only one task at a time
- b) multiple tasks at a time
- c) only two tasks at a time
- d) all of the mentioned

Ans: a

24. What is the objective of multiprogramming?

- a) Have some process running at all times
- b) Have multiple programs waiting in a queue ready to run
- c) To minimize CPU utilization
- d) None of the mentioned

Ans: a

25. What is a short-term scheduler?

- a) It selects which process has to be brought into the ready queue

- b) It selects which process has to be executed next and allocates CPU
- c) It selects which process to remove from memory by swapping
- d) None of the mentioned

Ans: b

26. Which of the following do not belong to queues for processes?

- a) Job Queue
- b) PCB queue
- c) Device Queue
- d) Ready Queue

Ans: b

27. When the process issues an I/O request \_\_\_\_\_

- a) It is placed in an I/O queue
- b) It is placed in a waiting queue
- c) It is placed in the ready queue
- d) It is placed in the Job queue

Ans: a

28. What will happen when a process terminates?

- a) It is removed from all queues
- b) It is removed from all, but the job queue
- c) Its process control block is de-allocated
- d) Its process control block is never de-allocated

Ans: a

29. What is a long-term scheduler?

- a) It selects which process has to be brought into the ready queue
- b) It selects which process has to be executed next and allocates CPU
- c) It selects which process to remove from memory by swapping
- d) None of the mentioned

Ans: a

30. If all processes I/O bound, the ready queue will almost always be \_\_\_\_\_ and the Short term Scheduler will have a \_\_\_\_\_ to do.

- a) full, little
- b) full, lot
- c) empty, little
- d) empty, lot

Ans: c

31. What is a medium-term scheduler?

- a) It selects which process has to be brought into the ready queue
- b) It selects which process has to be executed next and allocates CPU

- c) It selects which process to remove from memory by swapping
- d) None of the mentioned

Ans: c

32. The primary distinction between the short term scheduler and the long term scheduler is \_\_\_\_\_

- a) The length of their queues
- b) The type of processes they schedule
- c) The frequency of their execution
- d) None of the mentioned

Ans: c

33. The only state transition that is initiated by the user process itself is \_\_\_\_\_

- a) block
- b) wakeup
- c) dispatch
- d) none of the mentioned

Ans: a

34. In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the running state to the \_\_\_\_\_

- a) Blocked state
- b) Ready state
- c) Suspended state
- d) Terminated state

Ans: b

35. In a multiprogramming environment \_\_\_\_\_

- a) the processor executes more than one process at a time
- b) the programs are developed by more than one person
- c) more than one process resides in the memory
- d) a single user can execute many programs at the same time

Ans: c

36. Suppose that a process is in “Blocked” state waiting for some I/O service. When the service is completed, it goes to the \_\_\_\_\_

- a) Running state
- b) Ready state
- c) Suspended state
- d) Terminated state

Ans: b

37. The context of a process in the PCB of a process does not contain \_\_\_\_\_

- a) the value of the CPU registers

- b) the process state
- c) memory-management information
- d) context switch time

Ans: d

38. Which of the following need not necessarily be saved on a context switch between processes?

- a) General purpose registers
- b) Translation look aside buffer
- c) Program counter
- d) All of the mentioned

Ans: b

39. Which of the following does not interrupt a running process?

- a) A device
- b) Timer
- c) Scheduler process
- d) Power failure

Ans: c

40. Which process can be affected by other processes executing in the system?

- a) cooperating process
- b) child process
- c) parent process
- d) init process

Ans: a

41. When several processes access the same data concurrently and the outcome of the execution depends on the particular order in which the access takes place, is called?

- a) dynamic condition
- b) race condition
- c) essential condition
- d) critical condition

Ans: b

42. If a process is executing in its critical section, then no other processes can be executing in their critical section. This condition is called?

- a) mutual exclusion
- b) critical exclusion
- c) synchronous exclusion
- d) asynchronous exclusion

Ans: a

43. Mutual exclusion can be provided by the \_\_\_\_\_

- a) mutex locks
- b) binary semaphores
- c) both mutex locks and binary semaphores
- d) none of the mentioned

Ans: c

44. When high priority task is indirectly preempted by medium priority task effectively inverting the relative priority of the two tasks, the scenario is called \_\_\_\_\_

- a) priority inversion
- b) priority removal
- c) priority exchange
- d) priority modification

Ans: a

45. Process synchronization can be done on \_\_\_\_\_

- a) hardware level
- b) software level
- c) both hardware and software level
- d) none of the mentioned

Ans: c

46. With \_\_\_\_\_ only one process can execute at a time; meanwhile all other process are waiting for the processor. With \_\_\_\_\_ more than one process can be running simultaneously each on a different processor.

- a) Multiprocessing, Multiprogramming
- b) Multiprogramming, Uniprocessing
- c) Multiprogramming, Multiprocessing
- d) Uniprogramming, Multiprocessing

Ans: d

47. In UNIX, each process is identified by its \_\_\_\_\_

- a) Process Control Block
- b) Device Queue
- c) Process Identifier
- d) None of the mentioned

Ans: c

48. In UNIX, the return value for the fork system call is \_\_\_\_\_ for the child process and \_\_\_\_\_ for the parent process.

- a) A Negative integer, Zero
- b) Zero, A Negative integer
- c) Zero, A nonzero integer
- d) A nonzero integer, Zero

Ans: c

49. The child process can \_\_\_\_\_

- a) be a duplicate of the parent process
- b) never be a duplicate of the parent process
- c) cannot have another program loaded into it
- d) never have another program loaded into it

Ans: a

50. What is Inter process communication?

- a) allows processes to communicate and synchronize their actions when using the same address space
- b) allows processes to communicate and synchronize their actions without using the same address space
- c) allows the processes to only synchronize their actions without communication
- d) none of the mentioned

Ans: b

51. Message passing system allows processes to \_\_\_\_\_

- a) communicate with one another without resorting to shared data
- b) communicate with one another by resorting to shared data
- c) share data
- d) name the recipient or sender of the message

Ans: a

52. Which of the following two operations are provided by the IPC facility?

- a) write & delete message
- b) delete & receive message
- c) send & delete message
- d) receive & send message

Ans: d

53. Messages sent by a process \_\_\_\_\_

- a) have to be of a fixed size
- b) have to be a variable size
- c) can be fixed or variable sized
- d) None of the mentioned

Ans: c

54. The link between two processes P and Q to send and receive messages is called

- 
- a) communication link
  - b) message-passing link

- c) synchronization link
- d) all of the mentioned

Ans: a

55. Which module gives control of the CPU to the process selected by the short-term scheduler?

- a) dispatcher
- b) interrupt
- c) scheduler
- d) none of the mentioned

Ans: a

56. The processes that are residing in main memory and are ready and waiting to execute are kept on a list called \_\_\_\_\_

- a) job queue
- b) ready queue
- c) execution queue
- d) process queue.

Ans: b

57. The interval from the time of submission of a process to the time of completion is termed as \_\_\_\_\_

- a) waiting time
- b) turnaround time
- c) response time
- d) throughput

Ans: b

58. Which scheduling algorithm allocates the CPU first to the process that requests the CPU first?

- a) first-come, first-served scheduling
- b) shortest job scheduling
- c) priority scheduling
- d) none of the mentioned

Ans: a

59. In priority scheduling algorithm \_\_\_\_\_

- a) CPU is allocated to the process with highest priority
- b) CPU is allocated to the process with lowest priority
- c) Equal priority processes can not be scheduled
- d) None of the mentioned.

Ans: a

60. In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of \_\_\_\_\_

- a) all process
- b) currently running process
- c) parent process
- d) init process

Ans: b

61. Which algorithm is defined in Time quantum?

- a) shortest job scheduling algorithm
- b) round robin scheduling algorithm
- c) priority scheduling algorithm
- d) multilevel queue scheduling algorithm

Ans: b

62. Process are classified into different groups in \_\_\_\_\_

- a) shortest job scheduling algorithm
- b) round robin scheduling algorithm
- c) priority scheduling algorithm
- d) multilevel queue scheduling algorithm

Ans: d

63. In multilevel feedback scheduling algorithm \_\_\_\_\_

- a) a process can move to a different classified ready queue
- b) classification of ready queue is permanent
- c) processes are not classified into groups
- d) none of the mentioned

Ans: a

64. CPU scheduling is the basis of \_\_\_\_\_

- a) multiprocessor systems
- b) multiprogramming operating systems
- c) larger memory sized systems
- d) none of the mentioned

Ans: b

65. With multiprogramming \_\_\_\_\_ is used productively.

- a) time
- b) space
- c) money
- d) all of the mentioned

Ans: a

66. What are the two steps of a process execution?

- a) I/O & OS Burst
- b) CPU & I/O Burst
- c) Memory & I/O Burst
- d) OS & Memory Burst

Ans: b

67. An I/O bound program will typically have \_\_\_\_\_

- a) a few very short CPU bursts
- b) many very short I/O bursts
- c) many very short CPU bursts
- d) a few very short I/O bursts

Ans: c

68. A process is selected from the \_\_\_\_\_ queue by the \_\_\_\_\_ scheduler, to be executed.

- a) blocked, short term
- b) wait, long term
- c) ready, short term
- d) ready, long term

Ans: c

69. In the following cases non – preemptive scheduling occurs?

- a) When a process switches from the running state to the ready state
- b) When a process goes from the running state to the waiting state
- c) When a process switches from the waiting state to the ready state
- d) All of the mentioned

Ans: b

70. The switching of the CPU from one process or thread to another is called \_\_\_\_\_

- a) process switch
- b) task switch
- c) context switch
- d) all of the mentioned

Ans: d

71. What is Dispatch latency?

- a) the speed of dispatching a process from running to the ready state
- b) the time of dispatching a process from running to ready state and keeping the CPU idle
- c) the time to stop one process and start running another one
- d) none of the mentioned

Ans: c

72. Scheduling is done so as to \_\_\_\_\_

- a) increase CPU utilization
- b) decrease CPU utilization
- c) keep the CPU more idle
- d) none of the mentioned

Ans: a

73. Scheduling is done so as to \_\_\_\_\_

- a) increase the throughput
- b) decrease the throughput
- c) increase the duration of a specific amount of work
- d) none of the mentioned

Ans: a

74. What is Turnaround time?

- a) the total waiting time for a process to finish execution
- b) the total time spent in the ready queue
- c) the total time spent in the running queue
- d) the total time from the completion till the submission of a process

Ans: d

75. Scheduling is done so as to \_\_\_\_\_

- a) increase the turnaround time
- b) decrease the turnaround time
- c) keep the turnaround time same
- d) there is no relation between scheduling and turnaround time

Ans: b

76. What is Waiting time?

- a) the total time in the blocked and waiting queues
- b) the total time spent in the ready queue
- c) the total time spent in the running queue
- d) the total time from the completion till the submission of a process

Ans: b

77. Scheduling is done so as to \_\_\_\_\_

- a) increase the waiting time
- b) keep the waiting time the same
- c) decrease the waiting time
- d) none of the mentioned

Ans: c

78. What is Response time?

- a) the total time taken from the submission time till the completion time

- b) the total time taken from the submission time till the first response is produced
- c) the total time taken from submission time till the response is output
- d) none of the mentioned

Ans: b

79. Round robin scheduling falls under the category of \_\_\_\_\_

- a) Non-preemptive scheduling
- b) Preemptive scheduling
- c) All of the mentioned
- d) None of the mentioned

Ans: b

80. With round robin scheduling algorithm in a time shared system \_\_\_\_\_

- a) using very large time slices converts it into First come First served scheduling algorithm
- b) using very small time slices converts it into First come First served scheduling algorithm
- c) using extremely small time slices increases performance
- d) using very small time slices converts it into Shortest Job First algorithm

Ans: a

81. The portion of the process scheduler in an operating system that dispatches processes is concerned with \_\_\_\_\_

- a) assigning ready processes to CPU
- b) assigning ready processes to waiting queue
- c) assigning running processes to blocked queue
- d) all of the mentioned

Ans: a

82. Complex scheduling algorithms \_\_\_\_\_

- a) are very appropriate for very large computers
- b) use minimal resources
- c) use many resources
- d) all of the mentioned

Ans: a

83. What is FIFO algorithm?

- a) first executes the job that came in last in the queue
- b) first executes the job that came in first in the queue
- c) first executes the job that needs minimal processor
- d) first executes the job that has maximum processor needs

Ans:b

84. The strategy of making processes that are logically runnable to be temporarily suspended is called \_\_\_\_\_

- a) Non preemptive scheduling
- b) Preemptive scheduling
- c) Shortest job first
- d) First come First served

Ans: b

85. What is Scheduling?

- a) allowing a job to use the processor
- b) making proper use of processor
- c) all of the mentioned
- d) none of the mentioned

Ans: a

86. There are 10 different processes running on a workstation. Idle processes are waiting for an input event in the input queue. Busy processes are scheduled with the Round-Robin time sharing method. Which out of the following quantum times is the best value for small response times, if the processes have a short runtime, e.g. less than 10ms?

- a)  $tQ = 15\text{ms}$
- b)  $tQ = 40\text{ms}$
- c)  $tQ = 45\text{ms}$
- d)  $tQ = 50\text{ms}$ .

Ans: a

87. Orders are processed in the sequence they arrive if \_\_\_\_\_ rule sequences the jobs.

- a) earliest due date
- b) slack time remaining
- c) first come, first served
- d) critical ratio

Ans: c

88. Which of the following algorithms tends to minimize the process flow time?

- a) First come First served
- b) Shortest Job First
- c) Earliest Deadline First
- d) Longest Job First

Ans: b

89. Under multiprogramming, turnaround time for short jobs is usually \_\_\_\_\_ and that for long jobs is slightly \_\_\_\_\_

- a) Lengthened; Shortened
- b) Shortened; Lengthened

- c) Shortened; Shortened
- d) Shortened; Unchanged

Ans: b

90. Which of the following statements are true?

- I. Shortest remaining time first scheduling may cause starvation
- II. Preemptive scheduling may cause starvation
- III. Round robin is better than FCFS in terms of response time

- a) I only
- b) I and III only
- c) II and III only
- d) I, II and III

Ans: d

91. Which is the most optimal scheduling algorithm?

- a) FCFS – First come First served
- b) SJF – Shortest Job First
- c) RR – Round Robin
- d) None of the mentioned

Ans: b

92. The real difficulty with SJF in short term scheduling is \_\_\_\_\_

- a) it is too good an algorithm
- b) knowing the length of the next CPU request
- c) it is too complex to understand
- d) none of the mentioned

Ans: b

93. The FCFS algorithm is particularly troublesome for \_\_\_\_\_

- a) time sharing systems
- b) multiprogramming systems
- c) multiprocessor systems
- d) operating systems

Ans: b

94. Consider the following set of processes, the length of the CPU burst time given in milliseconds.

Process      Burst time

P1	6
P2	8
P3	7
P4	3

Assuming the above process being scheduled with the SJF scheduling algorithm.

- a) The waiting time for process P1 is 3ms
- b) The waiting time for process P1 is 0ms
- c) The waiting time for process P1 is 16ms
- d) The waiting time for process P1 is 9ms

Ans: a

95. An SJF algorithm is simply a priority algorithm where the priority is \_\_\_\_\_

- a) the predicted next CPU burst
- b) the inverse of the predicted next CPU burst
- c) the current CPU burst
- d) anything the user wants

Ans: a

96. Choose one of the disadvantages of the priority scheduling algorithm?

- a) it schedules in a very complex manner
- b) its scheduling takes up a lot of time
- c) it can lead to some low priority process waiting indefinitely for the CPU
- d) none of the mentioned

Ans: c

97. Which of the following scheduling algorithms gives minimum average waiting time?

- a) FCFS
- b) SJF
- c) Round – robin
- d) Priority

Ans: b

98. Mutual exclusion implies that \_\_\_\_\_

- a) if a process is executing in its critical section, then no other process must be executing in their critical sections
- b) if a process is executing in its critical section, then other processes must be executing in their critical sections
- c) if a process is executing in its critical section, then all the resources of the system must be blocked until it finishes execution
- d) none of the mentioned

Ans: a

99. Which of the following condition is required for a deadlock to be possible?

- a) mutual exclusion
- b) a process may hold allocated resources while awaiting assignment of other resources

- c) no resource can be forcibly removed from a process holding it
- d) all of the mentioned

Ans: d

100. A system is in the safe state if \_\_\_\_\_
- a) the system can allocate resources to each process in some order and still avoid a deadlock
  - b) there exist a safe sequence
  - c) all of the mentioned
  - d) none of the mentioned

Ans: a

101. The circular wait condition can be prevented by \_\_\_\_\_
- a) defining a linear ordering of resource types
  - b) using thread
  - c) using pipes
  - d) all of the mentioned

Ans: a

102. Which one of the following is the deadlock avoidance algorithm?
- a) banker's algorithm
  - b) round-robin algorithm
  - c) elevator algorithm
  - d) karn's algorithm

Ans: a

103. What is the drawback of banker's algorithm?
- a) in advance processes rarely know how much resource they will need
  - b) the number of processes changes as time progresses
  - c) resource once available can disappear
  - d) all of the mentioned

Ans: d

104. For an effective operating system, when to check for deadlock?
- a) every time a resource request is made
  - b) at fixed time intervals
  - c) every time a resource request is made at fixed time intervals
  - d) none of the mentioned

Ans: c

105. A problem encountered in multitasking when a process is perpetually denied necessary resources is called \_\_\_\_\_
- a) deadlock
  - b) starvation

c) inversion

d) aging

Ans: b

106. Which one of the following is a visual ( mathematical ) way to determine the deadlock occurrence?

a) resource allocation graph

b) starvation graph

c) inversion graph

d) none of the mentioned

Ans: a

107. To avoid deadlock \_\_\_\_\_

a) there must be a fixed number of resources to allocate

b) resource allocation must be done only once

c) all deadlocked processes must be aborted

d) inversion technique can be used

Ans: a

108. The number of resources requested by a process \_\_\_\_\_

a) must always be less than the total number of resources available in the system

b) must always be equal to the total number of resources available in the system

c) must not exceed the total number of resources available in the system

d) must exceed the total number of resources available in the system

Ans: c

109. The request and release of resources are \_\_\_\_\_

a) command line statements

b) interrupts

c) system calls

d) special programs

Ans: c

110. For a deadlock to arise, which of the following conditions must hold simultaneously?

a) Mutual exclusion

b) No preemption

c) Hold and wait

d) All of the mentioned

Ans: d

111. For Mutual exclusion to prevail in the system \_\_\_\_\_

a) at least one resource must be held in a non sharable mode

b) the processor must be a uniprocessor rather than a multiprocessor

- c) there must be at least one resource in a sharable mode
- d) all of the mentioned

Ans: a

112. For a Hold and wait condition to prevail \_\_\_\_\_
- a) A process must be not be holding a resource, but waiting for one to be freed, and then request to acquire it
  - b) A process must be holding at least one resource and waiting to acquire additional resources that are being held by other processes
  - c) A process must hold at least one resource and not be waiting to acquire additional resources
  - d) None of the mentioned

Ans: b

113. Deadlock prevention is a set of methods \_\_\_\_\_
- a) to ensure that at least one of the necessary conditions cannot hold
  - b) to ensure that all of the necessary conditions do not hold
  - c) to decide if the requested resources for a process have to be given or not
  - d) to recover from a deadlock

Ans: a

114. For non sharable resources like a printer, mutual exclusion \_\_\_\_\_
- a) must exist
  - b) must not exist
  - c) may exist
  - d) none of the mentioned

Ans: a

115. For sharable resources, mutual exclusion \_\_\_\_\_
- a) is required
  - b) is not required
  - c) may be or may not be required
  - d) none of the mentioned

Ans: b

116. To ensure that the hold and wait condition never occurs in the system, it must be ensured that \_\_\_\_\_
- a) whenever a resource is requested by a process, it is not holding any other resources
  - b) each process must request and be allocated all its resources before it begins its execution
  - c) a process can request resources only when it has none
  - d) all of the mentioned

Ans: d

117. The disadvantage of a process being allocated all its resources before beginning its execution is \_\_\_\_\_

- a) Low CPU utilization
- b) Low resource utilization
- c) Very high resource utilization
- d) None of the mentioned

Ans: b

118. To ensure no preemption, if a process is holding some resources and requests another resource that cannot be immediately allocated to it \_\_\_\_\_

- a) then the process waits for the resources be allocated to it
- b) the process keeps sending requests until the resource is allocated to it
- c) the process resumes execution without the resource being allocated to it
- d) then all resources currently being held are pre-empted

Ans: d

119. One way to ensure that the circular wait condition never holds is to \_\_\_\_\_

- a) impose a total ordering of all resource types and to determine whether one precedes another in the ordering
- b) to never let a process acquire resources that are held by other processes
- c) to let a process wait for only one resource at a time
- d) all of the mentioned

Ans: a

120. Each request requires that the system consider the \_\_\_\_\_ to decide whether the current request can be satisfied or must wait to avoid a future possible deadlock.

- a) resources currently available
- b) processes that have previously been in the system
- c) resources currently allocated to each process
- d) future requests and releases of each process

Ans: a

121. Given a priori information about the \_\_\_\_\_ number of resources of each type that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state.

- a) minimum
- b) average
- c) maximum
- d) approximate

Ans: c

122. A deadlock avoidance algorithm dynamically examines the \_\_\_\_\_ to ensure that a circular wait condition can never exist.

- a) resource allocation state

- b) system storage state
- c) operating system
- d) resources

Ans: a

123. A state is safe, if \_\_\_\_\_

- a) the system does not crash due to deadlock occurrence
- b) the system can allocate resources to each process in some order and still avoid a deadlock
- c) the state keeps the system protected and safe
- d) all of the mentioned

Ans: b

124. A system is in a safe state only if there exists a \_\_\_\_\_

- a) safe allocation
- b) safe resource
- c) safe sequence
- d) all of the mentioned

Ans: c

125. All unsafe states are \_\_\_\_\_

- a) deadlocks
- b) not deadlocks
- c) fatal
- d) none of the mentioned

Ans: b

126. A system has 12 magnetic tape drives and 3 processes : P0, P1, and P2.

Process P0 requires 10 tape drives, P1 requires 4 and P2 requires 9 tape drives.

Process

P0

P1

P2

Maximum needs (process-wise: P0 through P2 top to bottom)

10

4

9

Currently allocated (process-wise)

5

2

2

Which of the following sequence is a safe sequence?

- a) P0, P1, P2
- b) P1, P2, P0

- c) P2, P0, P1
- d) P1, P0, P2

Ans: d

127. If no cycle exists in the resource allocation graph \_\_\_\_\_

- a) then the system will not be in a safe state
- b) then the system will be in a safe state
- c) all of the mentioned
- d) none of the mentioned

Ans: b

128. The resource allocation graph is not applicable to a resource allocation system \_\_\_\_\_

- a) with multiple instances of each resource type
- b) with a single instance of each resource type
- c) single & multiple instances of each resource type
- d) none of the mentioned

Ans: a

129. The Banker's algorithm is \_\_\_\_\_ than the resource allocation graph algorithm.

- a) less efficient
- b) more efficient
- c) equal
- d) none of the mentioned

Ans: a

130. The data structures available in the Banker's algorithm are \_\_\_\_\_

- a) Available
- b) Need
- c) Allocation
- d) All of the mentioned

Ans: d

131. The content of the matrix Need is \_\_\_\_\_

- a) Allocation – Available
- b) Max – Available
- c) Max – Allocation
- d) Allocation – Max

Ans: c

132. A system with 5 processes P0 through P4 and three resource types A, B, C have A with 10 instances, B with 5 instances, and C with 7 instances. At time t0, the following snapshot has been taken:

Process  
P0  
P1  
P2  
P3  
P4

Allocation (process-wise : P0 through P4 top TO bottom)

A	B	C
0	1	0
2	0	0
3	0	2
2	1	1
0	0	2

MAX (process-wise: P0 through P4 top TO bottom)

A	B	C
7	5	3
3	2	2
9	0	2
2	2	2
4	3	3

Available

A	B	C
3	3	2

The sequence <P1, P3, P4, P2, P0> leads the system to \_\_\_\_\_

- a) an unsafe state
- b) a safe state
- c) a protected state
- d) a deadlock

Ans: b

133. The wait-for graph is a deadlock detection algorithm that is applicable when \_\_\_\_\_

- a) all resources have a single instance
- b) all resources have multiple instances
- c) all resources have a single or multiple instances
- d) all of the mentioned

Ans: a

134. An edge from process Pi to Pj in a wait for graph indicates that \_\_\_\_\_

- a) Pi is waiting for Pj to release a resource that Pi needs
- b) Pj is waiting for Pi to release a resource that Pj needs
- c) Pi is waiting for Pj to leave the system
- d) Pj is waiting for Pi to leave the system

Ans: a

135. If the wait for graph contains a cycle \_\_\_\_\_

- a) then a deadlock does not exist
- b) then a deadlock exists
- c) then the system is in a safe state
- d) either deadlock exists or system is in a safe state

Ans: b

136. If deadlocks occur frequently, the detection algorithm must be invoked \_\_\_\_\_

- a) rarely
- b) frequently
- c) rarely & frequently
- d) none of the mentioned

Ans: b

137. What is the disadvantage of invoking the detection algorithm for every request?

- a) overhead of the detection algorithm due to consumption of memory
- b) excessive time consumed in the request to be allocated memory
- c) considerable overhead in computation time
- d) all of the mentioned

Ans: c

138. A deadlock eventually cripples system throughput and will cause the CPU utilization to \_\_\_\_\_

- a) increase
- b) drop
- c) stay still
- d) none of the mentioned

Ans: b

139. Every time a request for allocation cannot be granted immediately, the detection algorithm is invoked. This will help identify \_\_\_\_\_

- a) the set of processes that have been deadlocked
- b) the set of processes in the deadlock queue
- c) the specific process that caused the deadlock
- d) all of the mentioned

Ans: a

140. A computer system has 6 tape drives, with 'n' processes competing for them. Each process may need 3 tape drives. The maximum value of 'n' for which the system is guaranteed to be deadlock free is?

a) 2

b) 3

c) 4

d) 1

Ans: 2

141. A system has 3 processes sharing 4 resources. If each process needs a maximum of 2 units then, deadlock \_\_\_\_\_

a) can never occur

b) may occur

c) has to occur

d) none of the mentioned

Ans: a

142. 'm' processes share 'n' resources of the same type. The maximum need of each process doesn't exceed 'n' and the sum of all their maximum needs is always less than  $m+n$ . In this setup, deadlock \_\_\_\_\_

a) can never occur

b) may occur

c) has to occur

d) none of the mentioned

Ans: a

143. A deadlock can be broken by \_\_\_\_\_

a) abort one or more processes to break the circular wait

b) abort all the process in the system

c) pre-empt all resources from all processes

d) none of the mentioned

Ans: a

144. The two ways of aborting processes and eliminating deadlocks are \_\_\_\_\_

a) Abort all deadlocked processes

b) Abort all processes

c) Abort one process at a time until the deadlock cycle is eliminated

d) All of the mentioned

Ans: c

145. Those processes should be aborted on occurrence of a deadlock, the termination of which?

a) is more time consuming

b) incurs minimum cost

c) safety is not hampered

d) all of the mentioned

Ans: b

146. The process to be aborted is chosen on the basis of the following factors?

- a) priority of the process
- b) process is interactive or batch
- c) how long the process has computed
- d) all of the mentioned

Ans: d

147. Cost factors for process termination include \_\_\_\_\_

- a) Number of resources the deadlock process is not holding
- b) CPU utilization at the time of deadlock
- c) Amount of time a deadlocked process has thus far consumed during its execution
- d) All of the mentioned

Ans: c

148. If we preempt a resource from a process, the process cannot continue with its normal execution and it must be \_\_\_\_\_

- a) aborted
- b) rolled back
- c) terminated
- d) queued

Ans: b

149. To \_\_\_\_\_ to a safe state, the system needs to keep more information about the states of processes.

- a) abort the process
- b) roll back the process
- c) queue the process
- d) none of the mentioned

Ans: b

150. If the resources are always preempted from the same process \_\_\_\_\_ can occur.

- a) deadlock
- b) system crash
- c) aging
- d) starvation

Ans: d

151. **Which of the following is NOT a valid deadlock prevention scheme?**

- (a) Release all resources before requesting a new resource
- (b) Number the resources uniquely and never request a lower numbered resource than the last one requested.

- (c) Never request a resource after releasing any resource
- (d) Request and all required resources be allocated before execution.

Ans: c

152. consider the 3 processes, P1, P2 and P3 shown in the table

Process	Arrival time	Time unit required
P1	0	5
P2	1	7
P3	3	4

The completion order of the 3 processes under the policies FCFS and RRS (round robin scheduling with CPU quantum of 2 time units) are

- (A) FCFS: P1, P2, P3 RRS: P1, P2, P3
- (B) FCFS: P1, P3, P2 RRS: P1, P3, P2
- (C) FCFS: P1, P2, P3 RRS: P1, P3, P2
- (D) FCFS: P1, P3, P2 RRS: P1, P2, P3

Ans: c

153. Consider a set of n tasks with known runtimes r1, r2, ... rn to be run on a uniprocessor machine. Which of the following processor scheduling algorithms will result in the maximum throughput?

- (a) Round-Robin
- (b) Shortest-Job-First
- (c) Highest-Response-Ratio-Next
- (d) First-Come-First-Served

Ans: B

154. Consider the following table of arrival time and burst time for three processes P0, P1 and P2.

Process	Arrival time	Burst Time
P0	0 ms	9 ms
P1	1 ms	4 ms
P2	2 ms	9 ms

The pre-emptive shortest job first scheduling algorithm is used. Scheduling is carried out only at arrival or completion of processes. What is the average waiting time for the three processes?

- (A) 5.0 ms
- (B) 4.33 ms
- (C) 6.33 ms
- (D) 7.33 ms

Ans: a

(Explanation: Process P0 is allocated processor at 0 ms as there is no other process in ready queue. P0 is preempted after 1 ms as P1 arrives at 1 ms and burst time for P1 is less than remaining time of P0. P1 runs for 4ms. P2 arrived at 2 ms but P1 continued as burst time of P2 is longer than P1. After P1 completes, P0 is scheduled again as the remaining time for P0 is less than the burst time of P2.  
 P0 waits for 4 ms, P1 waits for 0 ms and P2 waits for 11 ms. So average waiting time is  $(0+4+11)/3 = 5.$ )

155. **In which one of the following page replacement policies, Belady's anomaly may occur?**

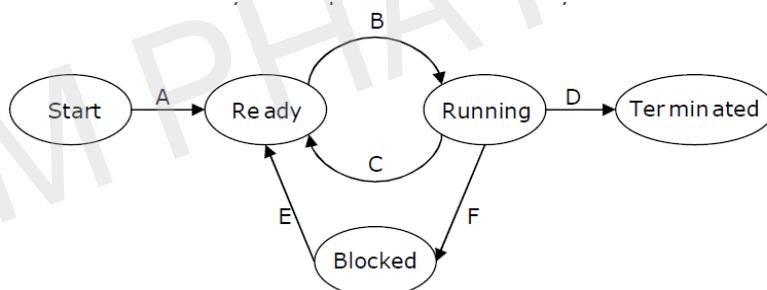
- (A) FIFO
- (B) Optimal
- (C) LRU
- (D) MRU

Ans: A

(Explanation: Belady's anomaly proves that it is possible to have more page faults when increasing the number of page frames while using the First in First Out (FIFO) page replacement algorithm.)

156.

**In the following process state transition diagram for a uniprocessor system, assume that there are always some processes in the ready state: Now consider the following statements:**



**I. If a process makes a transition D, it would result in another process making transition A immediately.**

**II. A process P2 in blocked state can make transition E while another process P1 is in running state.**

**III. The OS uses preemptive scheduling.**

**IV. The OS uses non-preemptive scheduling.**

**Which of the above statements are TRUE?**

- (A) I and II
- (B) I and III
- (C) II and III
- (D) II and IV

Ans: C

(Explanation: I is false. If a process makes a transition D, it would result in another process making transition B, not A.

II is true. A process can move to ready state when I/O completes irrespective of other process being in running state or not.

III is true because there is a transition from running to ready state.

IV is false as the OS uses preemptive scheduling.)

**157. Which of the following is NOT true of deadlock prevention and deadlock avoidance schemes?**

- (A) In deadlock prevention, the request for resources is always granted if the resulting state is safe
- (B) In deadlock avoidance, the request for resources is always granted if the result state is safe
- (C) Deadlock avoidance is less restrictive than deadlock prevention
- (D) Deadlock avoidance requires knowledge of resource requirements a priori

Ans: A

(Explanation: Deadlock prevention scheme handles deadlock by making sure that one of the four necessary conditions don't occur. In deadlock prevention, the request for a resource may not be granted even if the resulting state is safe.)

**158. Scheduling is done so as to :**

- A. increase the turnaround time
- B. decrease the turnaround time
- C. keep the turnaround time same
- D. there is no relation between scheduling and turnaround time

Ans: B

**159. Waiting time is :**

- A. the total time in the blocked and waiting queues
- B. the total time spent in the ready queue
- C. the total time spent in the running queue
- D. the total time from the completion till the submission of a process

Ans: B