

Computer Science: Operating System

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1: Round robin scheduling is essentially the preemptive version of _____ ?

- A. FIFO
- B. Shortest job first
- C. Shortest remaining
- D. Longest time first

Explanation: Round-robin (RR) is one of the simplest scheduling algorithms for processes in an operating system. The name of the algorithm comes from the round-robin principle known from other fields, where each person takes an equal share of something in turn.

2: A page fault occurs ?

- A. when the page is not in the memory
- B. when the page is in the memory
- C. when the process enters the blocked state
- D. when the process is in the ready state

Explanation: A page fault (sometimes #pf or pf) is a trap to the software raised by the hardware when a program accesses a page that is mapped in the virtual address space, but not loaded in physical memory.

3: Which of the following will determine your choice of systems software for your computer?

- A. Is the applications software you want to use compatible with it ?
- B. Is it expensive ?
- C. Is it compatible with your hardware ?
- D. Both 1 and 3

Explanation: The choice of the software should be compatible with the hardware and should not be expensive enough.

4: What is a shell ?

- A. is a hardware component
- B. It is a command interpreter
- C. It is a part in compiler
- D. It is a tool in CPU scheduling

Explanation: A Shell is the command line interpreter that provides the traditional user interface for the UNIX operating system. Users direct the operation of the computer by entering commands as text for a command line interpreter to execute or by creating text scripts of one or more such commands.

5: Routine is not loaded until it is called. All routines are kept on disk in a relocatable load format. The main program is loaded into memory & is executed. This type of loading is called... ?

- A. Static loading
- B. Dynamic loading

- C. Dynamic linking
- D. Overlays

Explanation: Dynamic linking provides the facility to load or unload routines at runtime.

6: In the blocked state ?

- A. the processes waiting for I/O are found
- B. the process which is running is found
- C. the processes waiting for the processor are found
- D. none of the above

Explanation: All the processes that are waiting for the completion of some event such as I/O operation or a signal are in Blocked state.

7: What is the memory from 1K - 640K called ?

- A. Extended Memory
- B. Normal Memory
- C. Low Memory
- D. Conventional Memory

Explanation: conventional memory, also called base memory

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

Explanation: Virtual memory allows a program to be designed as though there is only one kind of memory, "virtual" memory, which behaves like directly addressable read/write memory (RAM).

9: Which is not the state of the process ?

- A. Blocked
- B. Running
- C. Ready
- D. Privileged

Explanation: The five states of process are: Create , waiting, running, blocked, terminated

10: The number of processes completed per unit time is known as.... ?

- A. Output
- B. Throughput
- C. Efficiency
- D. Capacity

Explanation: The amount of data transferred from one place to another or processed in a specified amount of time is called throughput.

11: What is Page stealing ?

- A. It takes page frames from other working sets
- B. To increase the capacity of main memory
- C. To speed up main memory read operation
- D. None of above

Explanation: Before an application can access a page of data, it must be read into a buffer pool. If the buffer pool is full, then DB2 must delete an existing page before it can read the new one in. This process of page removal is called page-stealing.

12: What is convoy effect ?

- A. All process waiting for the long process to complete
- B. All process waiting for the small process to complete
- C. Process in not present in main memory
- D. None of above

Explanation: FIFO algorithm of CPU scheduling suffers from the convoy effect.

13: Aging is a technique ?

- A. Used to increase the priority of processed that are waiting for long times
- B. Used to decrease the priority that are waiting for long time
- C. Used to increase the priority of processed that are currently running
- D. Used to decrease the priority processes that are currently running

Explanation: Aging is a technique in which priorities of jobs increase the longer they wait.

14: Which of the following algorithm suffers from the Belady's anomaly ?

- A. FIFO
- B. LIFO
- C. Optimal Algorithm
- D. None of above

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

15: Concurrent process are ?

- A. Processes that do not overlap in time
- B. Process that overlap in time
- C. Processes that are executed by the processor at the same time
- D. None of above

Explanation: Concurrent processing means With sufficient resources, a single processor can be "working on" more than one program at the same time.

16: Which of the following disk scheduling strategies is likely to give the best throughput ?

- A. Farthest cylinder next

- B. Nearest Cylinder next
- C. FCFS
- D. Elevator algorithm

17: Size of the virtual memory depends upon ?

- A. Data Bus
- B. Address Bus
- C. Size of main memory
- D. Memory buffer register

18: Race around condition occurs when ?

- A. Two processes unknowingly wait for resources that are held by each other
- B. Two processes wait for same resources
- C. All resources are shared
- D. Two processes share the same shared resource

Explanation: Race around condition occurs in deadlocks when two processes wait for some resource at the same time.

19: The part of machine level instruction, which tells the central processor what has to be done, is

- A. Operation code
- B. address
- C. Locator
- D. Flip flop

20: Correcting errors in a program is referred to as

- A. Debugging
- B. bugging
- C. Rectifying
- D. modifying

21: An assembler is used to translate a program written in

- A. A Low Language
- B. A high Language
- C. Middle Language
- D. Assembly Language

22: Round robin scheduling is essentially the preemptive version of _____.

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23: 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.

24: Which is not the state of the process ?

- A. Privileged
- B. Ready
- C. Running
- D. Blocked

25: The number of processes completed per unit time is known as _____.

- A. output
- B. throughput
- C. Efficiency
- D. Capacity

26: The mechanism that bring a page into memory only when it is needed is called _____

- A. Sagmentation
- B. Fragmentation
- C. Demand Paging
- D. Page and Replacement

27: PCB =

- A. Program Control Block
- B. Process Control Block
- C. Process Communication Block
- D. None

28: FIFO scheduling is _____.

- A. Non Preemptive Scheduling
- B. Deadline Scheduling
- C. Preemptive Scheduling
- D. Fair share scheduling

29: Which directory implementation is used in most Operating System?

- A. Single level directory structure
- B. Two level directory structure
- C. Tree directory structure
- D. Acyclic directory structure

30: The Banker's algorithm is used

- A. to prevent deadlock in operating systems
- B. to detect deadlock in operating systems
- C. to rectify a deadlocked state
- D. None

31: _____ is a high level abstraction over Semaphore.

- A. Shared memory
- B. Monitor
- C. Mutual Exclusion
- D. None

32: A tree sturctured file directory system

- A. allows easy storage and retrieval of file names
- B. is a much debated unnecessary feature
- C. is not essential when we have millions of files

D. none of the above

33: A computer system that permits multiple users to run programs at same time

- A. Real time system
- B. Multi tasking system
- C. Time Sharing
- D. Multi processing

34: Telnet is a service that runs

- A. Remote Program
- B. Television on net
- C. Telnet
- D. Cable TV network

35: A device that forwards data packet from one network to another is called a

- A. Bridge
- B. Switch
- C. Hub
- D. Gateway

36: Resolution of externally defined symbols is performed by

- A. Linker
- B. Loader
- C. Compiler
- D. Assembler

37: A computer communication technology that provides a way to interconnect multiple computer across short distance is

- A. LAN
- B. WAN
- C. MAN
- D. Wireless Network

38: Which command is used to see the sub-directory structure of drive?

- A. Tree
- B. List
- C. Subtree
- D. none

39: In wildcard specification '?' is used as replacement for

- A. one character
- B. Two Character
- C. Three Character
- D. None

40: Memory management is:

- A. replaced with virtual memory on current systems
- B. not used in modern operating system
- C. not used on multiprogramming systems
- D. critical for even the simplest operating systems

41: Which of the following commands is given to reboot the Computer?

- A. Ctrl + Alt + Del
- B. Ctrl + Alt + TAB
- C. Ctrl + Shift + Del
- D. Ctrl + Alt + Shift

42: It is not possible to have a deadlock involving only a single process. Why?

- A. This follows directly from the hold-and-wait condition
- B. This holds mutual exclusion, hold-and-wait and non-preemption
- C. Because single process not always in safe state
- D. None

43: Dead-lock in an Operating System is

- A. Definite waiting process
- B. Desirable process
- C. Undesirable process
- D. ALL

44: Which of the following approaches do not require knowledge of the system state?

- A. Deadlock detection
- B. Deadlock dAvoidence
- C. Deadlock Prevension
- D. None

45: The simplest way to break a deadlock is to

- A. Kill one of the processes
- B. Roll back
- C. Preempt a resource
- D. Lock one of the processes

46: Which of the following scheduling policy is well suited for time shared operating system?

- A. Shortest job first
- B. Round robin
- C. First com first serve
- D. Elevator

47: The maximum amount of information that is available in one portion of the disk access arm for a removal disk pack (without further movement of the arm with multiple heads)

- A. A cylinder of data
- B. A track of data
- C. A block of data
- D. A plate of Data

48: Memory management is

- A. Not used in modern operating system
- B. Critical for even the simplest operating systems
- C. Not used on multiprogramming systems
- D. Replaced with virtual memory on current systems

49: A major security problem for operating system is

- A. Authentication problem
- B. Physical problem
- C. Human problem
- D. None

50: To protect system, there are how many security levels?

- A. 1
- B. 2
- C. 3
- D. 4

51: Which of the following topologies consists of multiple CPUs connected by a single communication line running the length of the network

- A. Tree
- B. Ring
- C. Bus
- D. Star

52: Which of the following is the process by which a user's privileges ascertained ?

- A. Access Control
- B. Authorization
- C. Authentication
- D. None

53: All of the following are examples of real security and privacy risks except

- A. Spam
- B. Hacker
- C. virus
- D. theft

54: Security violation due to

- A. Malicious
- B. Accidental
- C. Both A and B
- D. None

55: A public key encryption system

- A. Allows only the correct receiver to decode the data.
- B. Allows only one to decode the transmission.
- C. Allows only the correct sender to decode the data
- D. Does not encode the data before transmitting it.

56: Which model estimates the total effort in terms of person, months of the technical project staff?

- A. COCOMO model
- B. Prototyping
- C. spiral
- D. Waterfall

57: Bootstrap or vector is called

- A. Main program
- B. Grappling hook program

- C. Secondary program
- D. Primary storage

58: The DIR command in DOS operating system

- A. Extracts a list of file names
- B. Copies files
- C. Erases File
- D. none

59: The part of machine level instruction, which tells the central processor what has to be done, is

- A. Operation code
- B. Address
- C. Locator
- D. Flip-Flop
- E. None of the above

60: Which of the following refers to the associative memory?

- A. the address of the data is generated by the CPU
- B. the address of the data is supplied by the users
- C. there is no need for an address i.e. the data is used as an address
- D. the data are accessed sequentially
- E. None of the above

61: To avoid the race condition, the number of processes that may be simultaneously inside their critical section is

- A. 8
- B. 1
- C. 16
- D. 0

62: 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

63: Process is

- A. program in High level language kept on disk
- B. contents of main memory
- C. a program in execution
- D. a job in secondary memory

64: In data base, a field is a----

- A. table of information
- B. lable
- C. group of related records
- D. none of these

65: The data records arranged sequentially one after another in----

- A. serial data file
- B. random data file
- C. sequential data file

D. none

66: Each line in a data file is called---

- A. record
- B. field
- C. data
- D. none

67: Every file must have a-----

- A. data
- B. file name
- C. records
- D. field

68: The ----- contains data descriptions & defines the name, data type, & length of each field in the database.

- A. data dictionary
- B. data table
- C. data record
- D. data field

69: The purpose of the primary key in a database is to...

- A. unlock the database
- B. provide a map of the data
- C. uniquely identify a record
- D. none

70: When data changes in multiple lists & all lists are not updated, this causes;

- A. data redundancy
- B. information overload
- C. duplicate data
- D. data inconsistency

71: What is the name given to the database management system which is able to handle full text data, image data, audio & video?

- A. full media
- B. multimedia

72: Which of the following is the greatest advantage of the spreadsheet?

- A. what-if
- B. Variable entry
- C. cross footing

73: A software package to implement a data base is----

- A. system analysis
- B. DBMS
- C. DASD

74: A file containing relatively permanent data is---

- A. master file

- B. random file
- C. sequential file

75: Using windows Explorer, a plus(+) sign in front of a folder indicates----

- A. an open folder
- B. the folder contains subfolder
- C. the text file

76: MS_dos is a ----- operating system.

- A. user-friendly
- B. command-driven

77: Linux is a(n) ----operating system.

- A. open source
- B. mac
- C. windows

78: During the boot process, the ---- looks for the system files.

- A. CD
- B. BIOS
- C. CPU
- D. DVD

79: all of the following are examples of real security & privacy risks except-----

- A. spam
- B. hackers
- C. viruses

80: A hard disk becomes totally inaccessible when a computer virus corrupts its.

- A. partition table
- B. route directory

81: Since viruses are only a form of software , they primarily infect---

- A. programs
- B. data
- C. hardware

82: Since viruses are only a form of software , they primarily infect---

- A. programs
- B. data
- C. hardware

83: the software that performs the specific jobs to be done in a business is called---

- A. system software
- B. application software
- C. utilities

84: A popular operting system used with micro computer is---

- A. DOS

- B. UNIX
- C. XENIX

85: A system program which helps the execution of user programs is known as---

- A. system software
- B. operating system
- C. application program

86: A computer program that instruct other programs to perform a particular type of operation is---

- A. system software
- B. compiler
- C. Interpreter

87: What type of computer programming is used for airplane ticket reservation system ?

- A. multi programming
- B. real time programming
- C. time sharing

88: Group of instructions that directs a computer is called---

- A. programs
- B. Logic
- C. memory

89: The processes of starting or restarting a computer system by loading instruction from a secondary storage device into the complete memory is called----

- A. duping
- B. Booting
- C. padding

90: Multi user systems provided cost savings for small business because they use a single processing unit to link several---

- A. Dumb terminals
- B. mainframes
- C. workstations

91: A term used to describe interconnected computer configuration is---

- A. multi programming
- B. modulation
- C. multiprocessing

92: A directly accessible appointment calendar is feature of a---- resident package

- A. CPU
- B. Memory
- C. ALU

93: Which of the following processors use RISE technology?

- A. 486dx
- B. power PC
- C. 486sx

94: An approach that permits the computer to work on several programs instead of one is---

- A. on-line thesaurus
 - B. over lapped processing
 - C. multiprogramming
-