Questions	Answer Option (Only 4 options to be given : A, B, C and D)	Correct Answer (only one option)
Q.No.1 Which of the following bash command is used to copy a non-empty directory “source” to another directory “destination”? Assume that source and destination are in current pwd.	A: cp source destination B: cp –dir source destination C: cp –r source destination D: cp destination source	C
Q.No.2 Which of the following bash command will create a new file in the current directory?	A: touch foo B: head -3 foo C: cat foo D: tac foo	A
Q.No.3 Which of the following linux command is used to view all the processes running on a given CPU?	A: ps B: ps -a C: ps -e D: ps -allcpu	C
Q.No.4 If a file has current permissions as r - - r - - r - - , which of the following can be used to change the permission to r - - r w x r - - ?	A:chmod g+wx filename B: chmod g=rwx filename C: chmod 474 filename D: All the above	D

Q.No.5 Which of the following will give the total number of command line arguments passed to a bash executable file?	A: $$ B: $1 C: $0 D: $#	D
Q.No.6 Which of the following command will display the number of entries in the directory?	A: ls B: ls | wc -l C: wc D: ls | wc -c	B
Q.No.7 Which system call is used to allocate shared memory that can be used between processes?	A: shmalloc B: shmget C: shmat D: shmput	B
Q.No.8 Which of the following is useful for easy switch over between directories?	A: pushd B: cd C: popd D: Both A and C	D
Q.No.9 Which of the following is used to start a process in background?	A: ^ B: ? C: * D: &	D
Q.No.10 What command is used to sort a file by its second column in numerical, descending order?	A: sort -k 2 -r filename B: sort -k 2 -r -n filename C: sort filename D: sort - r filename	B

Q.No.11 The Program-Counter (PC) register used in the CPU holds which of the following?	A: instruction mnemonic B: address of the next instruction C: operands used by the instruction D: address of the operands used by instruction	B
Q.No.12 The purpose of VFS in linux is	A: Create a new File System B: Create a new Partition C: Give a uniform access to all underlying partitions D: All the above	C
Q.No.13 Which of the following is used to store the information of the resources allocated to processes in a system?	A:PCB B:RAG C:IVT D:LRU	B
Q.No. 14 Which of the following scheduling algorithm will not lead to starvation?	A: FCFS B: SJF C: Priority D: All the above	A

Q.No.15 Which of the following is a disadvantage of round-robin scheduling algorithm?	A: Starvation B: Higher turn-around time of processes C: Multitasking-effect D: Lower turn-around time of processes	B
Q.No.16 Which of the following is a preferred scheduling algorithm for RTOS?	A: Fair-Share B: Round Robin C: EDF D: All the above	C
Q.No.17 Which of the following is used to create a child process that is a copy of the parent process?	A: fork B: proc C: pthread D: exec	A
Q.No.18 Which of the following is an invalid transition in process life cycle?	A: Wait-State to Running-State B: ReadyQueue-State to Running-State C: Running-State to Wait-State D: Running-State to ReadyQueue-State	A

Q.No.19 Which of the following is not true for a Semaphore?	A: Semaphore is an integer B: It can be binary or counting in nature C: It is used for CPU scheduling D: It can be operated upon by two atomic functions only	C
Q.No.20 Process Synchronization is the solution for which of the following problem?	A: Mutual Exclusion B: Critical Section C: Race Condition D: Deadlock	C
Q.No.21 Which of the following IPC technique is prone to race condition?	A: Pipes B: Shared Memory C: Semaphore D: Message Queue	B
Q.No.22 Which of the following IPC technique does not allow a two-way communication between threads?	A: Pipes B: Shared Memory C: Semaphore D: Message Queue	A
Q.No.23 A process can be in Wait-State of process life cycle due to which of the following reason?	A: When process reaches end of main B: When a process encounters IO – instruction like	B

	printf() or scanf() C: When the process is created and it is waiting for the CPU allocation D: All the above	
Q.No.24 Which of the following is the disadvantage of paging?	A: External Fragmentation is removed totally B: Internal Fragmentation is removed totally C: Page table size is very large D: All the above	C
Q.No.25 Which of the following is the advantage of segmentation?	A: Segment table size is small B: Internal Fragmentation is removed C: External fragmentation is partially removed D: All the above	D
Q.No.26 Which of the following is the cause of Thrashing?	A: Global page replacement policy B: Local page replacement policy C: both A and B D: None of the	A

	above	
Q.No.27 Given a page reference string - 2,1,3,1,4,2,5 Assume that 3 frames are used. What will be the number of page-replacements if LRU algorithm is used?	A: 1 B: 2 C: 3 D: 4	C
Q.No.28 In demand paging technique, partial process is loaded in RAM. Where is the remaining part of the process placed?	A: Swap space on hard disk B: Swap space on RAM C: A special type of RAM called as Virtual Memory D: None of the above	A
Q.No.29 Which of the following is the advantage of Linked Block Allocation Technique?	A: It is easy to allocate blocks for a growing file B: Random access is easy C: External fragmentation is avoided D: Both A and C	D

Q.No.30 Which one of the following is not an advantage of demand paging?	A: External fragmentation is removed B: Degree of Multiprogramming increases C: A very huge process that does not fit into the RAM entirely, can also be executed D: None of the above	D
Q.No.31 Which of the following is the solution to external fragmentation?	A: Paging B: Paged-Segmentation C: Compaction D: All the above	D
Q.No.32 Which of the following happens when we delete a file?	A: The blocks allocated to the file are moved to free list from allocated list B: The contents of the file blocks are erased C: The blocks allocated to the file are overwritten with null value D: All the above	A

Q.No.33 Which of the following is true for Linux file system?	A: There are multiple drives like C: D: E: etc B: There is a single root denoted by root C: There is a unique root denoted by / and all file systems are mounted under its sub directories. D: Sometimes there is a unique root sometimes there are multiple drives, this depends on flavors of Linux	C
Q.No.34 What command is used to list the files chap0l, chap02 and chap04 in the current directory?	A: ls chap* B: ls chap[124] C: ls - x chap0[124] D: ls chap0[124]	C
Q.No.35 Which of the following will improve the throughput of a system?	A: If Average Turn-Around time of the system increases B: If Average Wait-Time of the system increases	C

	C: If Average Wait-Time of the system decreases D: None of the above	
Q.No.36 What is the purpose of the join system call?	A: The caller thread waits till the joined thread terminates B: The joined thread waits till the caller thread terminates C: The caller thread and the joined thread run as a single thread D: none of the above	A
Q.No.37 What shell's wild-card is used to match any number of characters including none?	A: ^ B: ? C: * D: &	C
Q.No.38 Which disk scheduling algorithm is prone to starvation?	A: FCFS B: SCAN C: SSTF D: C-SCAN	C

Q.No.39 Which system call will be used to create a POSIX thread?	A: pthread_create B: pthread_start C: pthread_run D: fork	A
Q.No.40 The disk scheduling algorithms attempts to reduce which of the following	A: Average Seek Time B: Average Rotational Latency Time C: Both A and B D: None of the above	A

Q. No. 41

Question:

Which of the following registers is used to store instruction in CPU?

Answer Choices

A: **IR** B: PC

C: PCB D: Accumulator

Q. No. 42

Question:

Which of the following tasks is not done by an operating system?

Answer Choices

A: Process Management B: Memory Management

C: **Code Optimization** D: Disk Scheduling

Q. No. 43

Question:

Which of the following data structure is used to map interrupts to their corresponding interrupt handlers?

Answer Choices

A: interrupt queue

B: **interrupt vector table**

C: page tables

D: function tables

Q. No. 44

Question:

Which of the following is true?

Answer Choices

A: An application can directly run from the hard disk

B: All instructions of an application can be loaded in CPU at a time

C: **An application must be loaded in RAM in order to execute it**

D: All the above

Q. No. 45

Question:

What is a process address space?

Answer Choices

A: It is a process space that has code, data, stack and heap segments

B: It is a space where addresses of all instructions are stored

C: both A and B

D: None

Q. No. 46

Question:

Which of the following commands can be used to copy a file “foo.dat” from “source” folder to “destination” and rename it as “glue.dat” in destination folder? Assume that “source” and “destination” are in current pwd.

Answer Choices

A: cp ./source/foo.dat ./destination/glue.dat

B: mv ./source/foo.dat ./destination/glue.dat

C: cp –rename ./source/foo.dat ./destination/glue.dat

D: None

Q. No. 47

Question:

A process can be in Wait-State of process life cycle due to which of the following reason?

Answer Choices

A: When process reaches end of main

B: When a process encounters IO –instruction like printf() or scanf()

C: When the process is created and it is waiting for the CPU allocation

D: All the above

Q. No. 48

Question:

Which of the following is used to run an executable program “proc” as background process?

Answer Choices

A: ps proc B: run proc C: . /proc **D: ./proc &**

Q. No. 49

Question:

Which of the following will improve the throughput of a system?

Answer Choices

A: If Average Turn-Around time of the system increases

B: If Average Wait-Time of the system increases

C: If Average Wait-Time of the system decreases

D: None of the above

Q. No. 50

Question:

Which of the following is true for Fair Share Scheduling?

Answer Choices

A: It is used in multi user operating system

B: It allocates cpu-time userwise

C: In this scheduling, the user running large number of processes will have a slower response time as compared to user running small number of processes

D: All the above

Q. No. 51

Question:

Which of the following is a disadvantage of round-robin scheduling algorithm?

Answer Choices

A: Starvation

B: Higher turn-around time of processes

C: Multitasking-effect

D: Lower turn-around time of processes

Q. No. 52

Question:

The time required by a process to execute all cpu instructions is called as

Answer Choices

A: CPU-burst-time B: IO-burst-time C: turnaround time D: response time

Q. No. 53

Question:

The binary semaphore is used for

Answer Choices

A: Mutual Exclusion

B: To avoid race condition

C: For sharing data safely

D: All the above

Q. No. 54

Question:

The code that accesses the data shared between two threads is called as

Answer Choices

A: Code Segment

B: Critical Section

C: Shared area

D: none

Q. No. 55

Question:

Which of the following IPC technique allows a unidirectional flow of data?

Answer Choices

A: Pipes

B: Shared Memory

C: Semaphore

D: Message Queue

Q. No. 56

Question:

Which of the following IPC technique uses a formatted message?

Answer Choices

A: Pipes

B: Shared Memory

C: Semaphore

D**: Message Queue**

Q. No. 57

Question:

Which of the following are used to select a free hole?

Answer Choices

A: worst fit

B: page table

C: offset address

D: All the above

Q. No. 58

Question:

Which of the following is true for segmentation?

Answer Choices

A: Segments are of variable length

B: Segment table is very large

C: External fragmentation is totally removed

D: All the above

Q. No. 59

Question:

What are the symptoms of Thrashing?

Answer Choices

A: System hangs

B: Processes terminate automatically

C: Processes run efficiently

D: Processes enter deadlock

Q. No. 60

Question:

In demand paging technique, partial process is loaded in RAM. Where is the remaining part of the process placed?

Answer Choices

A: Swap space on hard disk

B: Swap space on RAM

C: A special type of RAM called as Virtual Memory

D: None of the above

Q. No. 61

Question:

Which of the following is true for Internal Fragmentation?

Answer Choices

A: It is a problem

B: No solution known

C: Occurs in fixed partition scheme

D: All the above

Q. No. 62

Question:

Which of the following is the solution to external fragmentation?

Answer Choices

A: Paging B: Paged-Segmentation

C: Compaction **D: All the above**

Q. No. 63

Question:

Which of the following is the advantage of Indexed Block Allocation Technique?

Answer Choices

A: It is easy to allocate blocks for a growing file

B: Random access is easy

C: External fragmentation is avoided

D: All the above

Q. No. 64

Question:

Which of the following is true for a file?

Answer Choices

A: File is stored in RAM

B: File is allocated space in terms of blocks

C: File can only be accessed sequentially

D: All the above

Q. No. 65

Question:

The ext2 /ext3 file system in linux is based on which file allocation technique?

Answer Choices

A: Contiguous Block Allocation B: Linked Block Allocation

C: Indexed Block Allocation D: All the above

Q. No. 66

Question:

The disk scheduling algorithms attempts to reduce which of the following

Answer Choices

A: Average Seek Time B: Average Rotational Latency Time

C: Both A and B D: None of the above

Q. No. 67

Question:

Which of the following is true for page replacement algorithm?

Answer Choices

A: It is used when page fault occurs and free frames are available in RAM

B: It is used when page fault occurs and no free frames are available in RAM

C: It is used to avoid external fragmentation

D: It is used to avoid internal fragmentation

Q. No. 68

Question:

Which of the following can be used to view page by page listing of the detail contents of a huge directory “Sun”?

Answer Choices

A: ls –l Sun

B: ls –l Sun | more

C: cat Sun

D: more Sun

Q. No. 69

Question:

What command is used to find all files in the current directory that have lines starting with “echo”

Answer Choices

A: ls * | grep “echo”

B: grep “echo” *

C: grep “^echo” *

D: cat | grep “echo”

Q. No. 70

Question:

What command is used to sort a file by its second column in numerical, descending order?

Answer Choices

A: sort -k 2 -r filename

B: sort -k 2 -r -n filename

C: sort filename

D: sort - r filename

Q. No. 71

Question:

Which of the following is true for “fork” system call?

Answer Choices

A: It is used to create a duplicate process address space of current process

B: The child process created runs as an independent process

C: the call returns the process id of the newly created child process to the parent process

D: All the above

Q. No. 72

Question:

Which system call will be used to create a POSIX thread?

Answer Choices

A: pthread_create B: pthread_start

C: pthread_run D: fork

Q. No. 73

Question:

Which of the following is used to run a process as a part of the parent process?

Answer Choices

A: fork B: proc C: pthread **D: exec**

Q. No. 74

Question:

Which of the following is not the essential condition for deadlock?

Answer Choices

A: Mutual Exclusion B: No Preemption

C: No Race Condition D: Hold and Wait

Q. No. 75

Question:

Which of the following is used to assign values to position parameters?

Answer Choices

A: set B: assign C: allocate D: all the above

Q. No. 76

Question:

Which of the following is used to compress as well as archive a directory?

Answer Choices

A:tar B: gzip C: zip **D: none**

Q. No. 77

Question:

Which system call is used to allocate shared memory that can be used between processes?

Answer Choices

A: shmalloc **B: shmget**

C: shmat D: shmput

Q. No. 78

Question:

The purpose of VFS in linux is

Answer Choices

A: Create a new File System

B: Create a new Partition

C: Give a uniform access to all underlying partitions

D: All the above

Q. No. 79

Question:

Which of the following will sort a given file “players” and display first 4 entries?

Answer Choices

A: sort -4 players B: sort players >> head -4

C: sort players | head -4 D: all the above

Q. No. 80

Question:

The IPC techniques are useful for which of the following?

Answer Choices

A: Sharing data between processes B: Creating multiple processes

C:both A and B D:none

Q. No. 81

Question:

The command syntax to display the file 'sample.txt' one page at a time is

Answer Choices

A: man sample.txt>more B: cat sample.txt<more

C: cat sample.txt|more D: None of the above

Difficulty Level: Easy

Q. No. 82

Question:

Which command gives the first byte where the difference is in the file1 & file2?

Answer Choices

A: diff **B: cmp** C: comm. D: ls -a

Difficulty Level: Easy

Q. No. 83

Question:

Which command will you use to see the available routes?

Answer Choices

A: show route B: route status

C: netstat –r D: None of the above

Difficulty Level: Intermediate

Q. No. 84

Question:

In character mode operation of telnet implementation

Answer Choices

A: each character typed is sent by the client to the server

B: each character typed is discarded by the server

C: both (a) an (b)

D: None of the above

Difficulty Level: Intermediate

Q. No. 85

Question:

A shell program is a

Answer Choices

A: Binary file

B: System file

C: Text file

D: Linked file

Difficulty Level: Easy

Q. No. 86

Question:

Which command is used to report on the status of the quotas that have set including the amount of allocated space and amount of used space?

Answer Choices

A: quota –a

B: repquota

C: repquota –a

D: rquota -a

Difficulty Level: Difficult

Q. No. 87

Question:

Command for listing all the files starting with a range of letters from 'l' to's' in your current directory Answer Choices

A: ls [l-s]* B: ls l*s* C: ls [ls*] D: Not possible

Difficulty Level: Easy

Q. No. 88

Question:

Which command puts a script to sleep until a signal is received

Answer Choices

A: sleep **B: suspend**

C: disown D: break

Difficulty Level: Intermediate

Q. No. 89

Question:

How to compare numbers in Linux shell Scripting ?

Answer Choices

A: if[x>y] B: if[$x > $y]

C: if[$x -gt $y] D: All of the above

Difficulty Level: Easy

Q. No. 90

Question:

Which of the following calls never returns an error ?

Answer Choices

A: getpid B: fork C: ioctl D: open

Difficulty Level: Intermediate

Q. No. 91

Question:

Routine is not loaded until it is called. All routines are kept on disk in a re-locatable load format. The main program is loaded into memory & is executed. This type of loading is called _____

Answer Choices

A: Static loading

B: Dynamic loading

C: Dynamic linking and Loading

D: Overlays

Difficulty Level: Intermediate

Q. No. 92

Question:

The program is known as _____ which interacts with the inner part of OS called kernel.

Answer Choices

A: Compiler

B: Device Driver

C: Protocol

D: Shell

Difficulty Level: Easy

Q. No. 93

Question:

A _____ is software that manages the time of a microprocessor to ensure that all time critical events are processed as efficiently as possible. This software allows the system activities to be divided into multiple independent elements called tasks.

Answer Choices

A: Kernel

B: Shell

C: Processor

D: Device Driver

Difficulty Level: Intermediate

Q. No. 94

Question:

In Priority Scheduling a priority number (integer) is associated with each process. The CPU is allocated to the process with the highest priority (smallest integer = highest priority). The problem of, Starvation i.e. low priority processes may never execute, is resolved by_____

Answer Choices

A: Terminating the process.

B: Aging

C: Mutual Exclusion

D: Semaphore

Difficulty Level: Difficult

Q. No. 95

Question:

_____ is the ability of multiple process to co-ordinate their activities by exchange of information

Answer Choices

A: Synchronization

B: Mutual Exclusion

C: Dead lock

D: Starvation

Difficulty Level: Intermediate

Q. No. 96

Question:

_____ refers to the ability of multiple process (or threads) to share code, resources or data in such a way that only one process has access to shared object at a time.

Answer Choices

A: Synchronization

B: Mutual Exclusion

C: Dead lock

D: Starvation

Difficulty Level: Intermediate

Q. No. 97

Question:

What hole will allocates in “Worst-Fit” algorithm of memory management?

Answer Choices

A: It allocates the smaller hole than required memory hole.

B: It allocates the smallest hole from the available memory holes.

C: It allocates the largest hole from the available memory holes.

D: It allocates the exact same size memory hole.

Difficulty Level: Intermediate

Q. No. 98

Question:

What is Thrashing ?

Answer Choices

A: A high paging activity is called thrashing.

B: A high executing activity is called thrashing.

C: An extremely long process is called thrashing

D: An extremely long virtual memory is called thrashing

Difficulty Level: Intermediate

Q. No. 99

Question:

Bring a page into memory only when it is needed is called

Answer Choices

A: Demand Paging

B: Demand Memory

C: Page Fault

D: Page Segmentation

Difficulty Level: Easy

Q. No. 100

Question:

Page-Table length register (PTLR) indicates size of

Answer Choices

A: Page Table B: Paging File

C: Main Memory D: Virtual Memory

Difficulty Level: Intermediate

Q. No. 101

Question:

Which of the following are major activities of an operating system in regards to secondary storage management?

Answer Choices

A: Free-space management B: Storage allocation

C: Disk scheduling **D: All of the above**

Difficulty Level: Easy

Q. No. 102

Question:

Which of the following memory unit that processor can access more rapidly

Answer Choices

A: Main Memory B: Virtual Memory

C: Cache Memory D: Read only Memory

Difficulty Level: Easy

Q. No. 103

Question:

Which of the following is not a system call?

Answer Choices

A: chmod B: open

C: lseek **D: getc**

Difficulty Level: Intermediate

Q. No. 104

Question:

A fork system call will fail, if

Answer Choices

A: The previously executed statement is also a fork call

B: The limit on the maximum number of processes in the system would be exceeded.

C: The limit on the maximum number of processes that can be under execution by a single user would be exceeded.

D: Both B and C.

Difficulty Level: Difficult

Q. No. 105

Question:

The PID of the kernel process is

Answer Choices

A: undefined **B: 0** C: 1 D: 3

Difficulty Level: Intermediate

Q. No. 106

Question:

With a single resource, deadlock occurs

Answer Choices

A: if there are more than two processes for the resource.

B: if there are only two processes competing for that resource

C: if there is a single process competing for that resource.

D: none of the above

Difficulty Level: Intermediate

Q. No. 107

Question:

Which structure prohibits the sharing of files and directories ?

Answer Choices

A: tree structure B: one level structure

C: two level structure D: none of the above

Difficulty Level: Difficult

Q. No. 108

Question:

Shared sub-directories and files are example of

Answer Choices

A: a cyclic graph directory B: tree structured direction

C: one level directory D: none of these.

Difficulty Level: Intermediate

Q. No. 109

Question:

Multiple threads within the same process may be allocated to separate

Answer Choices

A: Applications B: Programs

C: Processors D: Processes

Difficulty Level: Intermediate

Q. No. 100

Question:

Which of the following is not shared by threads?

Answer Choices

A: program counter B: stack

C: both A and B D: none of the above

Difficulty Level: Intermediate

Q. No. 101

Question:

How do you copy an entire directory structure? E.g. from Project to Project.backup

Answer Choices

A: Cp -r Project Project.backup

B: Cp -e Project Project.backup

C: Cp -d Project Project.backup

D: Cp -s Project Project.backup

Difficulty Level: Intermediate

Correct Answer: A

Q. No. 102

Question:

How do you direct the shell to execute a command in the background?

Answer Choices

A: Put an & symbol at the end of the command line.

B: Key in fg followed by the command name.

C: Press Ctrl+c after you have keyed in the command.

D: Press Ctrl+d after you have keyed in the command.

Difficulty Level: Intermediate

Correct Answer: A

Q. No. 103

Question:

What does the permission string rwxr-xr-- correspond with in octal?

Answer Choices

A: 742

B: 754

C: 724

D: 624

Difficulty Level: Easy

Correct Answer: B

Q. No. 104

Question:

Which of the following TCP/IP network utilities is the BEST tool to use to establish if a given IP address is reachable under the current network configuration?

Answer Choices

A. ping

B. finger

C. route

D. host

Difficulty Level: Intermediate

Correct Answer: B

Q. No. 105

Question:

Which Linux file can be used to configure the default bash shell behavior for EVERY users on a system?

Answer Choices

A: /etc/skel/.bashrc

B: /home/.bash_profile

C: /etc/.profile

D: /etc/passwd

Difficulty Level: Easy

Correct Answer: C

Q. No. 106

Question:

Which of the following command(s) is/are used to reboot a Linux system?

Answer Choices

A: shutdown -h

B: reboot

C: init 6

D: All of the above

Difficulty Level: Easy

Correct Answer: D

Q. No. 107

Question:

Which of the following bash command lines could be used to "run every executable file in the current directory"?

Answer Choices

A: for i in * ; do { case [-x $i] ; { ./$i; } esac } done

B: while i in * ; do { if [-x $i] ; then { ./$i; } fi } done

C: foreach i in * ; do { if [-x $i] ; then { ./$i; } done }

D: for i in * ; do { if [-x $i] ; then { ./$i; } fi } done

Difficulty Level: Difficult

Correct Answer: D

Q. No. 108

Question:

What is the process id of init process ?

Answer Choices

A: 2

B: 0

C: 4

D: 1

Difficulty Level: Easy

Correct Answer: D

Q. No. 109

Question:

Which variable is used to display number of arguments specified in command line ?

Answer Choices

A: $?

B: $#

C: $0

D: $*

Difficulty Level: Easy

Correct Answer: B

Q. No. 110

Question:

Which statement skips over the rest of the loop body, causing the next cycle around the loop to begin immediately?

Answer Choices

A: break

B: next

C: continue

D: none of the above

Difficulty Level: Easy

Correct Answer: C

Q. No. 111

Question:

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

Answer Choices

A: Static loading

B: Dynamic loading

C: Dynamic linking

D: Overlays

Difficulty Level: Intermediate

Correct Answer: C

Q. No. 112

Question:

What is meant by Maskable interrupts?

Answer Choices

A: An interrupt which can never be turned off.

B: An interrupt that can be turned off by the programmer.

C: Both A and B

D: None of the Above

Difficulty Level: Intermediate

Correct Answer: B

Q. No. 113

Question:

Using Priority Scheduling algorithm, find the average waiting time for the following set of processes given with their priorities in the order:

Process	Brust Time	Priority
P1	10	3
P2	1	1
P3	2	4
P4	1	5
P5	5	2

Answer Choices

A: 8 millisecond

B: 8.2 millisecond

C: 7.75 millisecond

D: 3 milliseconds

Difficulty Level: Difficult

Correct Answer: B

Q. No. 114

Question:

Which scheduler controls the degree of multiprogramming?

Answer Choices

A: Short term scheduler

B: Long term scheduler

C: Middle term scheduler

D: None of the above

Difficulty Level: Easy

Correct Answer: B

Q. No. 115

Question:

Semaphores are used to solve the problem of

Answer Choices

A: Race Condition

B: Process Synchronization

C: Mutual Exclusion

D: Belady Problem

Difficulty Level: Intermediate

Correct Answer: C

Q. No. 116

Question:

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

Answer Choices

A: 12

B: 3

C: 1

D: 0

Difficulty Level: Easy

Correct Answer: C

Q. No. 117

Question:

A set of resources allocation such that the system can allocate resources to each process in some order, and still avoid a deadlock is called _____

Answer Choices

A: Unsafe state

B: Safe state

C: Starvation

D: Greedy allocation

Difficulty Level: Intermediate

Correct Answer: B

Q. No. 118

Question:

_____ provides a larger sized of virtual memory but require virtual memory which provides multidimensional memory.

Answer Choices

A: Paging method

B: Segmentation method

C: Paging and segmentation method

D: None of these

Difficulty Level: Easy

Correct Answer: B

Q. No. 119

Question:

A high paging rate

Answer Choices

A: may cause a high I/O rate

B: keeps the system running well

C: is a symptom of too much processor activity

D: always creates a slow system

Difficulty Level: Intermediate

Correct Answer: A

Session No. 120

Q. No. 1

Question:

Poor response times are caused by

Answer Choices

A: Busy processor

B: High I/O rate

C: High paging rates

D: Any of above

Difficulty Level: Easy

Correct Answer: D

Q. No. 121

Question:

Replace the page that will not be used for the longest period of time. This principle is adopted by _____

Answer Choices

A: FIFO Page replacement algorithm

B: Optimal Page replacement algorithm

C: Round robin scheduling algorithm

D: SCAN scheduling algorithm

Difficulty Level: Intermediate

Correct Answer: B

Q. No. 122

Question:

_____is a high speed cache used to hold recently referenced page table entries a part of paged virtual memory.

Answer Choices

A: Translation Lookaside buffer

B: Inverse page table

C: Segmented page table

D: All the above

Difficulty Level: Easy

Correct Answer: A

Q. No. 123

Question:

Which policy restricts scanning to one direction only?

Answer Choices

A: SCAN

B: C-SCAN

C: N-Step SCAN

D: Both A and B

Difficulty Level: Easy

Correct Answer: B

Session No. 124

Q. No. 1

Question:

How do you get parent process identification number?

Answer Choices

A: waitpid

B: getpid()

C: getppid()

D: parentid()

Difficulty Level: Easy

Correct Answer: C

Q. No. 125

Question:

How many times printf() will be executed in the below mentioned program?

```
main() {
int i;
for (i = 0; i < 4; i++)
```

```
fork();

printf("my pid = %d\n", getpid());
}
```

Answer Choices

A: 4

B: 8

C: 16

D: 32

Difficulty Level: Difficult

Correct Answer: C

Session No. 126

Q. No. 1

Question:

Race condition can be avoided by using

Answer Choices

A: semaphore

B: mutex

C: Socket

D: both a & b

Difficulty Level: Intermediate

Correct Answer: D

Q. No. 127

Question:

Semaphore P( ) operation usually does the following:

Answer Choices

A: decrements the semaphore count and the process sleeps if needed

B: increments the semaphore count

C: wakes up a sleeping process

D: None of the above

Difficulty Level: Intermediate

Correct Answer: A

Q. No. 128

Question:

who | cut –d ” ” -f1

what is the output if the who command displays like this

user1 tty 0 1234

Answer Choices

A: user1

B: tty

C: tty 0 1234

D: user1 tty 0 1234

Difficulty Level: Easy

Correct Answer: A

Q. No. 129

Question:

Which of the following are true in the case of a pipe as a mechanism of IPC?

Answer Choices

A: A pipe is for uni-directional communication.

B: A pipe uses a buffer and the size of the buffer can be specified by the user.

C: Pipes can be extended to establish communication between processes resident. on different machines provided we use the process id together with IP address of the machines.

D: Pipes can not support broadcast.:

Difficulty Level: Easy

Correct Answer: A

Q. No. 130

Question:

In a pure Kernel Level Thread facility all of work of thread management is done by the

Answer Choices

A: Application

B: Program

C: Kernel

D: Threads

Difficulty Level: Easy

Correct Answer: C

Q. No. 131

Question:

Which directory is used to write messages when kernel is loading?

Answer Choices

A: /etc/log/messages

B: /var/log/messages

C: /var/messages

D: /etc/ messages

Difficulty Level: Intermediate

Correct Answer: B

Q. No. 132

Question: Which of the following kernel contain all the operating system core functions and the device drivers (small programs that allow the operating system to interact with hardware devices, such as disk drives, video cards and printers).

Answer Choices

A: Microkernel

B: Monolithic kernels

C: Hybrid kernels

D: Exokernels

Difficulty Level: Intermediate

Correct Answer : B

Q. No. 133

Question: An interrupt is a

Answer Choices

A: program which gets executed when CPU crashes and stops executing everything.

B: signal for the CPU to stop what it is doing and instead carry out the interrupt task, and resume back to what it was doing.

C: abnormal program gets executed automatically.

D: None of the above.

Difficulty Level: Easy

Correct Answer : B

Q. No. 134

Question: Which of the following Linux system call creates a new process:

Answer Choices

A: fork()

B: exec()

C: nproc()

D: creat()

Difficulty Level: Intermediate

Correct Answer : A

Session No & Session Topic: 2 Interrupts

Q. No. 135

Question: Asynchronous interrupts are

Answer Choices

A: produced by the CPU control unit while executing instructions.

B: laptop generated types of interrupts.

C: generated by other hardware devices at arbitrary times with respect to the CPU clock signals.

D: None of the above.

Difficulty Level: Difficult

Correct Answer : C

Q. No. 136

Question: A signal in linux means

Answer Choices

A: a very short message that may be sent to a process or a group of processes

B: a process which gets executed when an interrupt occurs

C: a small program

D: an interrupt handler

Difficulty Level: Difficult

Correct Answer : B

Q. No. 137

Question: Code executed by interrupt or by exception handler is

Answer Choices

A: another program

B: not a legal code

C: a process

D: not a process

Difficulty Level: Intermediate

Correct Answer : D

Session No & Session Topic: 4

Q. No. 138

Question: An operation that is performed without interruption.

Answer Choices

A: Mutex Operation

B: safe operation

C: atomic operation

D: there is no such operation

Difficulty Level: Intermediate

Correct Answer : C

Q. No. 139

Question: Which of the following process scheduling algorithms do you expect to produce the smallest average waiting time (ignoring context switching and scheduling time)

Answer Choices

A: SJF

B: FCFS

C: Round-Robin

D: all are the same

Difficulty Level: Intermediate

Correct Answer : C

Q. No. 140

Question: Which of the following statement is false regarding Threads

Answer Choices

A: Threads are "lightweight" sub processes that execute within a process.

B: They share code and data segments.

C: Global and static variables are common to all threads.

D: They have common program counters, machine registers and stack.

Difficulty Level: Easy

Correct Answer : D

Q. No. 141

Question: Threads are divided into following two types at OS level

Answer Choices

A: User Level Threads and Application level Threads

B: Kernel Level Threads and Shell Level Threads

C: Kernel Level Threads and User Level Threads

D: Program Level Threads and Application Level Threads

Difficulty Level: Intermediate

Correct Answer : C

Q. No. 142

Question: Semaphore

Answer Choices

A: Requires complier support

B: Does not require complier support

C: Does not require shared memory

D: None of the above

Difficulty Level: Intermediate

Correct Answer : B

Q. No. 143

Question: Which of the following is a high level abstraction over Semaphores -

Answer Choices

A: Shared Memory

B: Message Passing

C: Monitor

D: Mutual Exclusion

Difficulty Level: Easy

Correct Answer : C

Q. No. 144

Question: The scheduling priority of a thread defines

Answer Choices

A: the relative importance of the work being done by each thread.

B: how the scheduler treats the thread after it gains control of the CPU.

C: the thread model used in the threads library.

D: None of the above.

Difficulty Level: Intermediate

Correct Answer : A

Q. No. 145

Question: Which of the following is not correct regarding Process and Threads -

Answer Choices

A: Processes can have multiple Threads

B: Processes are containers in which threads gets executed

C: Threads are dynamic entities

D: Each thread has at least one process.

Difficulty Level: Intermediate

Correct Answer : D

Q. No. 146

Question: The simplest way to break a deadlock is to

Answer Choices

A: preempt a resources

B: kill one of the processes

C: lock one of the processes

D: rollback entire operation

Difficulty Level: Easy

Correct Answer : B

Q. No. 147

Question: When a scheduler process (i.e. the operating system) refuses to give a particular thread any quantity of a particular resource (generally CPU) or if there are too many high-priority threads, a lower priority thread may be _____.

Answer Choices

A: Deadlocked

B: Starved

C: Multithreaded

D: None of the above

Difficulty Level: Easy

Correct Answer : B

Q. No. 148

Question: A situation where several processes access and manipulate the same data concurrently, and the outcome depends on the particular order in which the access takes place is called:

Answer Choices

A: Rollback

B: Race Condition

C: Starvation

D: Safe Sequence

Difficulty Level: Difficult

Correct Answer : B

Q. No. 149

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

Answer Choices

A: Segmentation

B: Fragmentation

C: Demand Paging

D: Page Replacement

Difficulty Level: Easy

Correct Answer : C

Q. No. 150

Question: Paged memory allocation is based on the concept of:

Answer Choices

A: Eliminating internal fragmentation

B: Eliminating external fragmentation

C: Breaking a program into smaller programs known as page.

D: Dividing each incoming job into pages of equal size.

Difficulty Level: Intermediate

Correct Answer : D

Q. No. 151

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

Answer Choices

A: Virtual Memory

B: Extended Memory

C: Base Memory

D: Conventional Memory

Difficulty Level: Intermediate

Correct Answer : D

Q. No. 152

Question: Which of the following could be considered an advantage of Virtual Memory Management?

Answer Choices

A: Job size is no longer restricted to the size of main memory

B: Only a part of each page needs to be loaded into memory

C: Both A and B.

D: None of the above

Difficulty Level: Easy

Correct Answer : C

Q. No. 153

Question: Which of these functions applies to the File manager?

Answer Choices

A: Keep track of where each file is stored.

B: Make sure each file has enough CPU time allocated to it.

C: Format the disk drive

D: Back up files

Difficulty Level: Difficult

Correct Answer : A

Q. No. 154

Question: When disks are initialized they have a partition structure imposed on them that divides the physical disk into a number of logical partitions. Which of the following statement is correct in terms of partitions -?

Answer Choices

A: Each partition may hold a single directory structure.

B: Each partition may hold different directory structures.

C: partition doesn't hold any directory structure.

D: All partitions should hold same directory structure.

Difficulty Level: Difficult

Correct Answer : A

Q. No. 155

Question: There are two objectives for any disk scheduling algorithm -

Answer Choices

A: Maximize the throughput and Maximize the response time

B: Minimize the throughput and Maximize the response time

C: Maximize the throughput and Minimize the response time

D: None of the above

Difficulty Level: Difficult

Correct Answer : C

Q. No. 156

Question: Increasing the resolution of a monitor will:

Answer Choices

A: increase the size of the images.

B: result in a faster refresh rate.

C: decrease the size of the images.

D: result in a slower refresh rate.

Difficulty Level: Easy

Correct Answer : D

Q. No. 157

Question: A Virtual Machine system can have -

Answer Choices

A: Many instances of single Operating system running on it.

B: Many instances of different Operating system running on it.

C: One Host OS and many Guest OS running on it.

D: All of the above

Difficulty Level: Intermediate

Correct Answer : D

Q. No. 158

Question: Which of the following feature is impossible to virtualize

Answer Choices

A: Real time behaviour

B: Memory Sharing

C: Storage virtualization

D: Network device sharing

Difficulty Level: Difficult

Correct Answer : D

Q. No. 159

Question: What is use of Multiprocessor CPU Scheduling –

Answer Choices

A: To support multiprogramming.

B: To support parallel processing.

C: Both A and B

D: None of the above

Difficulty Level: Easy

Correct Answer : C

Q. No. 160

Question: Which of the following is not an example of a processor-bound job?

Answer Choices

A: Statistical analysis of student performance

B: Iterative calculation of a square root

C: Backing up a hard drive to tape

D: Having a program calculate the first 20 prime numbers.

Difficulty Level: Intermediate

Correct Answer : C

Q. No. 161

Question: Which command is used for changing Prompt under Linux –

Answer Choices

A: set prompt =

B: prompt =

C: setprompt()

D: None of the above.

Difficulty Level: Easy

Correct Answer : A

Q. No. 162

Question: What is the output of following command in Linux

$who am i

Answer Choices

A: list of users who are all currently logged into the system.

B: displays the current user name.

C: it consider who as command and display current user by considering the option as am i

D: displays an error message

Difficulty Level: Intermediate

Correct Answer : C

Q. No. 163

Question: Which command is more secured to logon to a remote computer in Linux ?

Answer Choices

A: telnet

B: ssh

C: Both A and B

D: None of the above

Difficulty Level: Intermediate

Correct Answer : B

Q. No. 164

Question: Which command is used to recover a file that was being edited when system crashed ?

Answer Choices

A: recovery is not possible.

B: vi -r filename

C: vi –x filename

D: vi –recover filename

Difficulty Level: Difficult

Correct Answer : B

Q. No. 165

Question: Which set option is used with vi editor to display line numbers on screen?

Answer Choices

A: nm

B: nu

C: ic

D: li

Difficulty Level: Intermediate

Correct Answer : B

Q. No. 166

Question: Environment variables can be accessed by

Answer Choices

A: System programs

B: C Programs

C: Shell scripts

D: Both B and C

Difficulty Level: Intermediate

Correct Answer : C

Q. No. 167

Question: Which of the following are not system calls?

Answer Choices

A: chmod

B: lseek

C: open

D: Getm

Difficulty Level: Easy

Correct Answer : D

Q. No. 168

Question: An attempt to read from locked file, results in

Answer Choices

A: Prematured termination

B: A deadlock

C: An indefinite wait

D: an Error

Difficulty Level: Intermediate

Correct Answer : D

Q. No. 169

Question: Which of the following System Call is not used for Process Creation in Linux

Answer Choices

A: new

B: fork

C: exec

D: none of the above

Difficulty Level: Easy

Correct Answer : A

Q. No. 170

Question: Which statement is false regarding Signals in Linux ?

Answer Choices

A: Signals are software interrupts.

B: A Signal can be ignored.

C: Every signal has a name that begins with characters SIG

D: The signal cannot be caught

Difficulty Level: Intermediate

Correct Answer : D

Q. No. 171

Question: Which of the following is not a state of Signal in Linux

Answer Choices

A: We may have our own signal handler for the signal.

B: Signal may be handled by the default handler.

C: Signal may be ignored.

D: Signals can be deleted.

Difficulty Level: Intermediate

Correct Answer : D