

Question # 1

Which of these is not a bitwise operator??

Revisit

Choose the best option

- ☐ &' Operator
- ☐ &=' Operator
- ☐ |= ' Operator
- ☒ <=' Operator

Question # 2

echo \$(uname -r) is an example of _____.

Revisit

Choose the best option

- ☐ brace expansion
- ☐ arithmetic expansion
- ☒ command substitution
- ☐ parameter expansion

Question # 3

Kernel generate signals to:

Revisit

Choose the best option

- ☒ notify processes of events
- ☐ call user space
- ☐ stop execution of ended process
- ☐ Kernel does not generate signals

Question # 4

Which one of the following is not the part of main thread libraries in use today?

Revisit

Choose the best option

- ☐ POSIX Pthreads
- ☐ Win32 threads
- ☐ Java threads
- ☒ HP-UX threads

Question # 5

The section of code, which is accessed by the shared variable is known as _____.

Revisit

Choose the best option

- ☐ Block V
- ☐ Semaphore
- ☐ Mutex
- ☒ Critical Section

Question # 6

Where is Swap Space located/exists?

Revisit

Choose the best option

- ☐ Primary Memory
- ☒ Secondary Memory
- ☐ Registers
- ☐ Virtual Memory

Question # 7

Which of the following environment variable contains the value of default Shell Prompt?

Revisit

Choose the best option

- ☐ PS1
- ☐ PS2
- ☒ SHELL
- ☐ \$HOME

Question # 8

Each process (in a process-model) has a :

Revisit

Choose the best option

- ☐ Single pending field
- ☐ Signal mask field
- ☐ Signal action activity
- ☒ All of the above

Question # 9

Which of the following for loop declaration is not valid?

Revisit

Choose the best option

- ☐ for (int i = 99; i >= 0; i / 9)
- ☐ for (int i = 7; i <= 77; i += 7)
- ☐ for (int i = 20; i >= 2; - i)
- ☒ for (int i = 2; i <= 20; i = 2 * i)

Question # 10

Consider a reference string: 4, 7, 6, 1, 7, 6, 1, 2, 7, 2
the number of frames in the memory is 3 and it uses First In First Out page replacement policy. Calculate hit and miss ratio respectively.

Hit-> 1+1+1
miss-> 1+1+1+1

4 7 6
1 7 6
1 2 6
1 2 7

Hit/Miss = 3:4

Revisit

Choose the best option

- ☒ Hit Ratio= 40 %, Miss Ratio= 60 %
- ☐ Hit Ratio= 60 %, Miss Ratio= 40 %
- ☐ Hit Ratio= 50 %, Miss Ratio= 50 %
- ☐ Hit Ratio= 40 %, Miss Ratio= 40 %

Question # 11

Which of the following is used as a special cache to keep track of recently used page table entries?

Revisit

Choose the best option

- ☐ Register
- ☐ Stack
- ☐ Heap
- ☒ Translation Look Aside Buffer (TLB)

Question # 12

Another type of multiple-CPU system is the:

Revisit

Choose the best option

- ☐ Mini Computer
- ☐ Super Computer
- ☒ Clustered System
- ☐ Network Computer

Question # 13

Scheduling of threads are done by:

Revisit

Choose the best option

- ☐ Input
- ☐ Output
- ☒ Operating System
- ☐ Main Memory

Question # 14

What will be the output of the below code snippet?

```
public class Main {  
    public static void main(String[] args) {  
        String s1 = "pgdac";  
        String s2 = new String("pgdac");  
        String s3 = "pgdac";  
        if (s1 == s2) {  
            System.out.println("s1 and s2 equal");  
        } else {  
            System.out.println("s1 and s2 not equal");  
        }  
        if (s1 == s3) {  
            System.out.println("s1 and s3 equal");  
        } else {  
            System.out.println("s1 and s3 not equal");  
        }  
    }  
}
```

Revisit

Choose the best option

- ☐ s1 and s2 equal
s1 and s3 equal
- ☐ s1 and s2 equal
s1 and s3 not equal
- ☒ s1 and s2 not equal
s1 and s3 equal
- ☐ s1 and s2 not equal
s1 and s3 not equal

Question # 15

Signal delivery in a process model takes place:

Revisit

Choose the best option

- ☐ in the context of the process that received the signal
- ☐ in the context of the process that generated the signal
- ☐ in the context of the kernel
- ☐ None of the above

Question # 16


Logical extension of multiprogramming operating system is:

Revisit

Choose the best option

- ☐ Time sharing
- ☐ Multi-tasking
- ☐ Single programming
- ☒ Time sharing and Multi-tasking

Question # 17


 Revisit

Which of the following is right way to create a new object in Java?

Choose the best option

- ☒ `ClassName object = new ClassName();`
- ☐ `Object.create();`
- ☐ `classname.objectname();`
- ☐ `obj = classname();`

Question # 18


 Revisit

A _____ is a data structure maintained by the Operating System for every process and identified by an integer process ID (PID).

Choose the best option

- ☒ Process Control Block
- ☐ Process Pointer
- ☐ Program Counter
- ☐ Process Register

Question # 19

 Revisit

Secondary memory is divided into equal size partition (fixed) called _____ and Main memory is divided into small fixed-sized blocks of (physical) memory called _____.

Choose the best option

- ☐ pages, frames
- ☐ frames, pages
- ☒ segments, frames
- ☐ pages, segments

Question # 20

 Revisit

Which method can be defined only once in a program?

Choose the best option

- ☒ main method
- ☐ finalize method
- ☐ static method
- ☐ private method

Question # 21

Which one is fastest form of Inter-process communication (IPC)?

Revisit

Choose the best option

- ☐ Signals
- ☒ Shared Memory
- ☐ Message Queues
- ☐ Pipes

Question # 22

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

P1 : 10 : 3 ,
P2 : 1 : 1 ,
P3 : 2 : 4 ,
P4 : 1 : 5 ,
P5 : 5 : 2 .

$41/5 = 8.2 \text{ msec}$

Revisit

Choose the best option

- ☐ 8 milliseconds
- ☒ 8.5 milliseconds
- ☐ 7.75 milliseconds
- ☐ 3 milliseconds

Question # 23

_____ involves storing the context or state of a process so that it can be reloaded when required and execution can be resumed from the same point as earlier.

Revisit

Choose the best option

- ☐ Process Switching
- ☒ Context Switching
- ☐ Process Swapping
- ☐ Context Swapping

Question # 24

Which of the following should surround regular expressions to ensure that they are processed properly?

Revisit

Choose the best option

- ☒ Parentheses
- ☐ Backslashes
- ☐ Double quotation marks
- ☐ Single quotation marks

Question # 25

Which of these statements is incorrect?

Revisit

Choose the best option

- ☒ Every class must contain a main() method.
- ☐ Applets do not require a main() method at all.
- ☐ There can be only one main() method in a program.
- ☐ main() method must be made public.

Question # 26

The output of a script is:

Weekday 1 : Mon
Weekday 2 : Tue
Weekday 3 : Wed
Weekday 4 : Thu
Weekday 5 : Fri

Choose the correct script:

Revisit

Choose the best option

- ☐ i=1
for day in Mon Tue Wed Thu Fri
do
 echo "Weekday \$(i++) : \$day"
done
- ☐ i=0
for day in Mon Tue Wed Thu Fri
do
 echo "Weekday \$(i++) : \$day"
done
- ☒ i=1
for day in Mon Tue Wed Thu Fri
do
 echo "Weekday \$((i++)) : \$day"
done
- ☐ i=1
for day in Mon Tue Wed Thu Fri

Question # 27

A dirty bit or modified bit is a bit that is associated with a block of computer memory and indicates whether or not the corresponding block of memory has been modified. When the dirty bit is switched _____, the page is modified and can be replaced in memory. If it is _____, no replacement is necessary since no updates have been made.

Revisit

Choose the best option

- ☒ on, off
- ☐ off, on
- ☐ off, off
- ☐ None of the above

Question # 28

Which of the following signals cannot be blocked, ignored and caught?

Revisit

Choose the best option

- ☐ SIGINT SIGSTOP
- ☐ SIGINT SIGKILL
- ☐ SIGINT SIGILL
- ☒ SIGKILL SIGSTOP

Question # 29

Revisit

What value is returned by the fork() system call on a successful creation of the child process to the child?

Choose the best option

- ☒ 0
- ☐ -1
- ☐ 1
- ☐ PID of the parent process

Question # 30

Revisit

Which piece of code displays that the two functions are reentrant functions

Choose the best option

- ☐

```
int x;  
int my_function() {  
    return x * 10;  
}  
int my_second_function() {  
    return my_function() * 20;  
}
```
- ☐

```
int my_function(int x) {  
    return x * 10;  
}  
int my_second_function(int x) {  
    return my_function(x) * 20;  
}
```
- ☐

```
int my_function(int x) {  
    return x * 10;  
}  
int my_second_function(int x) {
```

Question # 31

Revisit

As a part of paging technique, physical memory is broken into fixed-sized blocks called as _____.

Choose the best option

- ☐ Pages
- ☒ Frames
- ☐ Segments
- ☐ Blocks

Question # 32

Revisit


A graphical operating system- Windows NT, developed by Microsoft uses _____ type of kernel?

Choose the best option

- ☐ Monolithic
- ☐ Micro
- ☒ Hybrid
- ☐ Nano
- ☐ Clear Response

Question # 33

Which is a valid way to declare and initialize an array?


 Revisit

Choose the best option

- ☐ `int [] arr = {"1", "2", "3"};`
- ☐ `int [] arr = (5, 8, 2);`
- ☐ `int arr [] = {4,9,7,0};`
- ☒ `int arr [] = {4, 3, 7};`

Question # 34

The command used to display long listing of file is:


 Revisit

Choose the best option

- ☒ `ls -l`
- ☐ `ls -a`
- ☐ `ls -t`
- ☐ `ls -r`

Question # 35

Which of the following variable need to be initialized before using it?

 Revisit

Choose the best option

- ☒ Local
- ☐ Instance
- ☐ Static
- ☐ Global

Question # 36

Which of the following represent legal flow control statements?

 Revisit

Choose the best option

- ☐ `continue(inner);`
- ☐ `break();`
- ☒ `break;`
- ☐ `exit();`

Question # 37

What is the latest Long-Term Support (LTS) release for Java standard Edition (SE)?

Revisit

Choose the best option

- ☐ Java 16
- ☐ Java 15
- ☒ Java 17
- ☐ Java 19

Question # 38

Memory management technique in which Operating System stores and retrieves data from secondary storage for use in main memory is called _____.

Revisit

Choose the best option

- ☐ Fragmentation
- ☒ Paging
- ☐ Mapping
- ☐ Thrashing

Question # 39

Consider a single level paging scheme. The virtual address space is 4 MB and page size is 4 KB. What could be the number of pages of process here?

Revisit

Choose the best option

for 1 MB 256 pages (1024 kB = 1 MB , 1024/4 kb(1 page size) = 256
so 4MB * 256 = 2^10 = 1024 pages

- ☒ 2^10 pages
- ☐ 2^100 pages
- ☐ 2^1000 pages
- ☐ (2^10) -1 pages

Question # 40

What will be the output of the below code snippet?

Revisit

Choose the best option

```
public class Main
{
    static int num1 = 100;
    static int num2 = 200;
    static {
        num1 += 1;
        num2 += 1;
    }
    public static void main(String args[]) {
        num1 += 5;
        num2 += 10;
        System.out.println(num1 + num2);
    }
    static {
        num1 += 200;
        num2 += 300;
    }
}
```

- ☐ 517
- ☒ 817
- ☐ 15
- ☐ 315