# Operating System

# Chapter 2

## MCQ

### Part - 3

# (MCQs) Group 1.

**1- When an interrupt occurs, an operating system**

**(A)** ignores the interrupt
**(B)** always changes state of interrupted process to 'blocked' and schedules another process
**(C)** always resumes execution of interrupted process after processing the interrupt
**(D)** may change the state of interrupted process to 'blocked' and schedule another process

**2-** A scheduling algorithm assigns priority proportional to the waiting time of a process. Every process starts with priority zero (the lowest priority). The scheduler re-evaluates the process priorities **every T time units** and decides the next process to schedule. Which one of the following is TRUE if the processes have no I/O operations and all arrive at time zero?

a) This algorithm is equivalent to the first-come-first-serve algorithm
b) This algorithm is equivalent to the round-robin algorithm.
c) This algorithm is equivalent to the shortest-job-first algorithm.
d) This algorithm is equivalent to the shortest-remaining-time-first algorithm

**3- which of the following groups of information could sensibly be found associated with a PCB**

a) memory, devices , process state , which processor
b) access rights , link to other processes , CPU usage, owner
c) open files condition handler resource limits , priority
d) all of the above

**4- --------- is a property that shared by all threads in a process**

**a)** Register b) Stack c)Global variables

**5- --------- scheduler is called job scheduler**

a) Short term b) Long term c)Medium term

**6- ---------- is a goal of batch systems**

a) Minimize turn around time b)Maximize proportionality
b) Minimize response time

**7- ---------- algorithm must be non-preemptive only**

a) SJF b) FCFS c)RR

**8- In ---------- , if a program crashes , the entire system will be halted**

a) User mode b)Kernel mode c)Device management

**9- ---------- is a software-generated problem caused either by an error or user request**

a) A trap b) An interrupt c) User mode

**10- Wait event is ---------- system call**

a) Process control b)File management c) Device management

**11- Performance overhead of user space to kernel space communication is disadvantage of ---------- structure**

a) Module b) Microkernel c)Simple

**12- In deadlock . ---------- means only one process at time can use a resource**

a) Hold and wait b)Mutual exclusion c)Circular wait

**13- The operating system maintains a table of thread information called**

a) PCB b) TCB c) TLB

**14- The ------- are shared by all threads in the process**

a) Register and stack b)PCB and address space c) Child processes and counter

**15- ---------- reduce the degree of multiprogramming**

a)Short term scheduler b)Long term scheduler c)Medium term scheduler

**16- A Process Control Block(PCB) does not contain which of the following :**

a) Code b) Stack
c) Bootstrap program d) Data

**17- The number of processes completed per unit time is known as _____**

a) Output b) Throughput
c) Efficiency d) Capacity

**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

**19- Which of the following is not the state of a process?**

a) New b) Old c) Waiting d) Running

**20- The Process Control Block is:**

a) Process type variable b) Data Structure
c) A secondary storage section d) A Block in memory

**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

**22- The degree of multiprogramming is:**

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

**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 c) all of the mentioned

**24- The objective of multiprogramming is to :**

a) Have some process running at all times

b) Have multiple programs waiting in a queue ready to run

c) To minimize CPU utilization

**25- CPU scheduling is the basis of _____**

a) multiprocessor systems b) multiprogramming operating systems

c) larger memory sized systems d) none of the mentioned

**26- With multiprogramming, _____ is used productively.**

a) time b) space c) money d) all of the mentioned

**27- The two steps of a process execution are :**

a) I/O & OS Burst b) CPU & I/O Burst

c) Memory & I/O Burst d) OS & Memory Burst

**28- 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

**29- A process is selected from _____ queue by _____ scheduler, to be executed.**

a) blocked, short term b) wait, long term

c) ready, short term d) ready, long term

**30- 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

**31- 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

**32- Dispatch latency is :**

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

**33- 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

**34- 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

**35- 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

**36- Turnaround time is :**

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

**37- A ___ can be used to prevent a user program from never returning control to the operating system.**

A) portal B) program counter

C) firewall D) timer

**38- Embedded computers typically run on a ___ operating system.**

A) real-time B) Windows 7 C) network D) clustered

**39- When a child process is created, which of the following is a possibility?**

A) The child process runs concurrently with the parent.

B) The child process has a new program loaded into it.

C) The child is a duplicate of the parent.

D) All of the above

**40-** In what way is an operating system like a government?

A) It seldom functions correctly.

B) It creates an environment within which other programs can do useful work.

C) It performs most useful functions by itself.

D) It is always concerned primarily with the individual's needs.

**41-** ___ operating systems are designed primarily to maximize resource utilization.

A) PC B) Handheld computer C) Mainframe D) Network

**42-** What are some other terms for kernel mode?

A) supervisor mode B) system mode

C) privileged mode D) All of the above

**43-** Which of the following statements concerning open source operating systems is true?

A) Solaris is open source. B) Source code is freely available.

C) They are always more secure than commercial, closed systems.

D) All open source operating systems share the same set of goals.

**44-** Which of the following operating systems is not open source?
A) Windows B) BSD UNIX C) Linux D) PCLinuxOS

**45-** A(n) _____ is the unit of work in a system.
A) process B) operating system C) timer D) mode bit

**46-** The two separate modes of operating in a system are
A) supervisor mode and system mode B) kernel mode and privileged mode
C) physical mode and logical mode D) user mode and kernel mode