1. What is an operating system?

1. interface between the hardware and application programs
2. collection of programs that manages hardware resources
3. system service provider to the application programs
4. all of the mentioned  
   View Answer

Answer: d

2. **What was the first operating system?**

1. Linux
2. Windows
3. GM NAA I/O
4. Android

**Answer: c)** GM NAA I/O

**3. When was the first operating system built?**

1. 1956
2. 1950
3. 1952
4. 1960

**Answer: a)** 1956

**4. What is the full form of BIOS?**

1. Between input-output system
2. Binary input-output system
3. Basic input/output system
4. All of the above

**Answer. c)** Basic input/output system.

5. **Who needs a BIOS to function properly?**

1. A mobile device
2. An operating system
3. Hardware devices
4. All of the above

**Answer. b)** an operating system.

6. **What does restarting an operating system do?**

1. Restarts all the processes
2. Shuts down the operating system completely
3. Terminates all running programs completely
4. All of the above

**Answer. a)** restarts all the processes.

7. **13. Which one of the following isn’t considered a real-time operating system?**

1. PSOS
2. linuxRT
3. VRTX
4. Windows

**Answer. d)** Windows.

8. **What is a batch operating system?**

1. Multiple individual tasks
2. Similar types of tasks are grouped together
3. Tasks operating at different systemsAll of the above

**Answer. b)** Similar types of tasks grouped together

9. **What is a time sharing operating system?**

1. Makes use of log files to do basic task
2. One shell seems to be shared
3. Allows users to use one system with two different terminals
4. All of the above

**Answer. c)** Allows users to use one system with two different terminals.

10. **Programs are executed on the basis of a priority number in a**

1. Batch processing system
2. Multiprogramming
3. Time sharing
4. None of these

**Answer: B**

11. **Which one of the following is not an operating system?**

1. UNIX
2. Windows
3. XENIX
4. APPLE

**Answer: D**

12. **What is the Process by which the operating system is loaded into the memory?**

1. Booting
2. Processing
3. Loading
4. None of the above

**Answer: A**

13. **Where is ROM-BIOS program located?**

a) RAM

b) BROM

c) Hard Disk

d) Compact Disk

**Answer: B**

14. **The core of UNIX operating system is called**

a) Kernel

b) Karnel

c) Kannal

d) None of the above

**Answer: A**

15. **An operating system is \_\_\_\_ which performs the entire basic task like file management, process management, etc.**

1. Software
2. Program
3. Process
4. Thread

**Answer:** A) Software

16. **Which of the following operating system does not interact with the computer directly, in fact in this operating system each user prepares his job in an offline device and submits it to the computer?**

1. Batch Operating system
2. Multitasking Operating System
3. Time-sharing Operating System
4. Distributed Operating System

**Answer:** A) Batch Operating system

17. **\_\_\_ Operating system is a technique that enables many people, located at various terminals, to use a particular computer system at the same time?**

1. Batch Operating system
2. Multitasking Operating System
3. Time-sharing Operating System
4. Distributed Operating System

**Answer:** C) Time-sharing Operating System

18. **Which of the following Operating systems use multiple central processors to serve multiple real-time applications and multiple users?**

1. Batch Operating system
2. Multitasking Operating System
3. Time-sharing Operating System
4. Distributed Operating System

**Answer:** D) Distributed Operating System

19. **\_\_\_ is the heart of an operating system?**

1. Software
2. Programs
3. CPU
4. Kernel

**Answer:** D) Kernel

20. **Which of the following is the feature of the operating system?**

1. Error detection aids
2. Control over system performance
3. Coordination between other software and users
4. All of the above

**Answer:** D) All of the above

21.  In \_\_\_\_ mode, the kernel runs on behalf of the user.  
a) user  
b) kernel  
c) real  
d) all  
View Answer

Answer: b

22.  Which of the following system call is used for closing a file?  
a) open  
b) lseek  
c) close  
d) write  
View Answer

Answer: c

23.  close system call returns \_\_\_\_  
a) 0  
b) -1  
c) 1  
d) 0 and -1  
View Answer

Answer: d  
Explanation: The return type of close system call is an integer. It either returns 0 if the file is closed successfully or -1 otherwise.

24. \_\_\_\_ system call is used for writing to a file.  
a) read  
b) write  
c) close  
d) seek  
View Answer

Answer: b

25Which of the following is false about I/O Operation?

A. Operating system does not provides the access to the I/O device  
B. I/O operation means read or write operation  
C. An I/O subsystem comprises of I/O devices  
D. None of the above

View Answer

Ans : A

26. Which of the following is false about File system manipulation?

A. Computers can store files on the disk (Primary storage), for long-term storage purpose  
B. Program needs to read a file or write a file.  
C. Operating System provides an interface to the user to create/delete files.  
D. Operating System provides an interface to create the backup of file system.

View Answer

Ans : A

27. There are \_\_\_ modes of opening a file.  
a) 4  
b) 3  
c) 2  
d) 1  
View Answer

Answer: b  
Explanation: There are three modes of opening a file, out of which only one mode is required to be specified while opening the file. The three modes are, O\_RDONLY, O\_WRONLY, O\_RDWR.

28.  What are the services operating System provides to both the users and to the programs?

A. File System manipulation  
B. Error Detection  
C. Program execution  
D. Resource Allocation

View Answer

Ans : C

29. Which of the following few common services provided by an operating system?

A. Protection  
B. Program execution  
C. I/O operations  
D. All of the above

View Answer

Ans : D

30. Which of the following is true about Program execution?

A. Restrict to load a program into memory.  
B. Provides a mechanism for process synchronization.  
C. Do not provides a mechanism for process communication.  
D. Do not provides a mechanism for deadlock handling.

View Answer

Ans : B

**Unit-2**

1)PCB stands for?

A. Process Current Block  
B. Parent Control Block  
C. Parent Current Block  
D. Process Control Block

View Answer

Ans : D

2) In which state, processor executes its instructions?

A. Ready  
B. Waiting  
C. Running  
D. Start

View Answer

Ans : C

3) In PCB, This is required to allow/disallow access to system resources.

A. Process State  
B. Process privileges  
C. Program Counter  
D. CPU Scheduling Information

View Answer

Ans : B

4) In PCB, This includes the amount of CPU used for process execution, time limits, execution ID etc.

A. IO status information  
B. CPU Scheduling Information  
C. CPU registers  
D. Accounting information

View Answer

Ans : D

5) The OS maintains all PCBs in?

A. Process Scheduling Queues  
B. Job queue  
C. Ready queue  
D. Device queues

View Answer

Ans : A

6)  The processes which are blocked due to unavailability of an I/O device constitute this queue.

A. Process Scheduling Queues  
B. Job queue  
C. Ready queue  
D. Device queues

View Answer

Ans : D

7) Which scheduler is also called a job scheduler?

A. Long-Term Scheduler  
B. Short-Term Scheduler  
C. Medium-Term Scheduler  
D. All of the above

View Answer

Ans : A

8) When the suspended process is moved to the secondary storage. This process is called?

A. process mix.  
B. swapping  
C. Swap-In  
D. Swap-Out

View Answer

Ans : B

9) Which scheduler Speed is fastest?

A. Long-Term Scheduler  
B. Short-Term Scheduler  
C. Medium-Term Scheduler  
D. Swapping

View Answer

Ans : B

10) Which Schedular is a part of Time sharing systems?

A. Long-Term Scheduler  
B. Short-Term Scheduler  
C. Medium-Term Scheduler  
D. Swapping

View Answer

Ans : C

11) A\_\_\_\_\_\_\_\_\_ is the mechanism to store and restore the state

A. PCB  
B. Program Counter  
C. Scheduling information  
D. context switch

View Answer

Ans : D

12) Which of the following information is stored when the process is switched?

A. I/O State information  
B. Accounting information  
C. Base and limit register value  
D. All of the above

View Answer

Ans : D

13) The algorithms are \_\_\_\_\_\_\_\_.

A. non-preemptive  
B. preemptive  
C. Both A and B  
D. None of the above

View Answer

Ans : C

Explanation: The algorithms are either non-preemptive or preemptive.

14) Which of the following is process scheduling algorithms?

A. FCFS  
B. SJN  
C. RR  
D. All of the above

View Answer

Ans : D

Explanation: There are six popular process scheduling algorithms : First-Come, First-Served (FCFS) Scheduling, Shortest-Job-Next (SJN) Scheduling, Priority Scheduling, Shortest Remaining Time, Round Robin(RR) Scheduling, Multiple-Level Queues Scheduling

15) Which of the following algorithms work based on priority?

A. non-preemptive  
B. preemptive  
C. Both A and B  
D. None of the above

View Answer

Ans : B

Explanation: The preemptive scheduling is based on priority where a scheduler may preempt a low priority running process anytime when a high priority process enters into a ready state.

16) Which of the following is false regarding First Come First Serve (FCFS)?

A. FCFS performance is high  
B. average wait time is high.  
C. Its implementation is based on FIFO queue.  
D. FCFS is easy to understand and implement.

View Answer

Ans : A

Explanation: In FCFS, Poor in performance.

17) Which of the following is non-preemptive algorithm?

A. Priority Based Scheduling  
B. Shortest Remaining Time  
C. FCFS  
D. shortest job first

View Answer

Ans : A

18) In Round Robin Scheduling, Each process is provided a fix time to execute, it is called a?

A. Batch Time  
B. Job Time  
C. quantum  
D. Period

View Answer

Ans : C

19) \_\_\_\_\_\_\_\_\_ is used to save states of preempted processes.

A. Context switching  
B. Quantam  
C. Process Period  
D. Batch Jobs

View Answer

Ans : A

20)In Priority Based Scheduling, if Processes have same priority then which Scheduling algorithm is used?

A. SJN  
B. FCFS  
C. SRT  
D. Round Robin

View Answer

Ans : B

21) What is Interprocess 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  
c) allows the processes to only synchronize their actions without communication  
d) none of the mentioned  
View Answer

Answer: b

22) Message passing system allows processes to \_\_\_\_\_\_\_\_\_\_  
a) communicate with each other without sharing the same address space  
b) communicate with one another by resorting to shared data  
c) share data  
d) name the recipient or sender of the message  
View Answer

Answer: a

23) 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  
View Answer

Answer: d

24) Which of the following are TRUE for direct communication?  
a) A communication link can be associated with N number of process(N = max. number of processes supported by system)  
b) A communication link is associated with exactly two processes  
c) Exactly N/2 links exist between each pair of processes(N = max. number of processes supported by system)  
d) Exactly two link exists between each pair of processes  
View Answer

Answer: b

25) In indirect communication between processes P and Q \_\_\_\_\_\_\_\_\_\_  
a) there is another process R to handle and pass on the messages between P and Q  
b) there is another machine between the two processes to help communication  
c) there is a mailbox to help communication between P and Q  
d) none of the mentioned  
View Answer

Answer: c

26) In the non blocking send \_\_\_\_\_\_\_\_\_\_  
a) the sending process keeps sending until the message is received  
b) the sending process sends the message and resumes operation  
c) the sending process keeps sending until it receives a message  
d) none of the mentioned  
View Answer

Answer: b

27) In the Zero capacity queue \_\_\_\_\_\_\_\_\_\_  
a) the queue can store at least one message  
b) the sender blocks until the receiver receives the message  
c) the sender keeps sending and the messages don’t wait in the queue  
d) none of the mentioned  
View Answer

Answer: b

28) Bounded capacity and Unbounded capacity queues are referred to as \_\_\_\_\_\_\_\_\_\_  
a) Programmed buffering  
b) Automatic buffering  
c) User defined buffering  
d) No buffering  
View Answer

Answer: b

29) A parent process calling \_\_\_\_\_ system call will be suspended until children processes terminate.  
a) wait  
b) fork  
c) exit  
d) exec  
View Answer

Answer: a

30) 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  
View Answer

Answer: a

**Unit-3**

1) Process synchronization can be done on which of the following levels

A. hardware  
B. software  
C. both hardware and software  
D. none of the mentioned

View Answer C

2) In which the access takes place when different processes try to access the same data concurrently and the outcome of the [execution](https://t4tutorials.com/os-execution/) depends on the specific order, is called

A. dynamic condition  
B. [race condition](https://t4tutorials.com/race-condition-with-examples-in-os/)  
C. essential condition  
D. critical condition

Answer B

3) Which of the following process can be affected by other processes during execution in the system?

A. init process  
B. child process  
C. parent process  
D. cooperating process

Answer D

4) If a process is executing in its critical section, then no other processes can be executing in their

critical section. What is this condition called?

a) mutual exclusion

b) critical exclusion

c) synchronous exclusion

d) asynchronous exclusion

View Answer

Answer: a

5) 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  
View Answer

Answer: a

6) A problem encountered in multitasking when a process is perpetually denied necessary resources is called \_\_\_\_\_\_\_\_\_\_\_\_  
a) deadlock  
b) starvation  
c) inversion  
d) aging  
View Answer

Answer: b

7) If a process is executing in its critical section, then no other processes can be executing in their critical section. What is this condition called?  
a) mutual exclusion  
b) critical exclusion  
c) synchronous exclusion  
d) asynchronous exclusion  
View Answer

Answer: a

8) Concurrent access to shared data may result in \_\_\_\_\_\_\_\_\_\_\_\_  
a) data consistency  
b) data insecurity  
c) data inconsistency  
d) none of the mentioned  
View Answer

Answer: c

9) A situation where several processes access and manipulate the same data concurrently and the outcome of the execution depends on the particular order in which access takes place is called \_\_\_\_\_\_\_\_\_\_\_\_  
a) data consistency  
b) race condition  
c) aging  
d) starvation  
View Answer

Answer: b

10) The segment of code in which the process may change common variables, update tables, write into files is known as \_\_\_\_\_\_\_\_\_\_\_\_  
a) program  
b) critical section  
c) non – critical section  
d) synchronizing  
View Answer

Answer: b

11) A minimum of \_\_\_\_\_ variable(s) is/are required to be shared between processes to solve the critical section problem.  
a) one  
b) two  
c) three  
d) four  
View Answer

Answer: b

12) Which of the following conditions must be satisfied to solve the critical section problem?  
a) Mutual Exclusion  
b) Progress  
c) Bounded Waiting  
d) All of the mentioned  
View Answer

Answer: d

13) The bounded buffer problem is also known as \_\_\_\_\_\_\_\_\_\_\_\_  
a) Readers – Writers problem  
b) Dining – Philosophers problem  
c) Producer – Consumer problem  
d) None of the mentioned  
View Answer

Answer: c

14) In the bounded buffer problem, there are the empty and full semaphores that \_\_\_\_\_\_\_\_\_\_\_\_  
a) count the number of empty and full buffers  
b) count the number of empty and full memory spaces  
c) count the number of empty and full queues  
d) none of the mentioned  
View Answer

Answer: a

15) In the bounded buffer problem \_\_\_\_\_\_\_\_\_\_\_\_  
a) there is only one buffer  
b) there are n buffers ( n being greater than one but finite)  
c) there are infinite buffers  
d) the buffer size is bounded  
View Answer

Answer: b