



Operating System

1. What does the acronym DMA stand for in the context of operating systems?

- a) **Direct Memory Access**
- b) Dynamic Memory Allocation
- c) Direct Module Access
- d) Dynamic Module Allocation

2. What does the term "context switch" refer to in operating systems?

- a) Switching between different hardware devices
- b) Switching between different user accounts
- c) **Switching the CPU from one process to another**
- d) Switching from user mode to kernel mode

3. What is a shell in the context of operating systems?

- a) A type of hardware
- b) **A command interpreter**
- c) A graphical user interface
- d) A file system

4. What is the function of a bootloader in an operating system?

- a) To manage files
- b) **To load the operating system into memory**
- c) To manage memory allocation
- d) To manage user permissions

5. What is the primary function of a scheduler in an operating system?

- a) To manage memory
- b) To manage files
- c) **To allocate CPU time to processes**
- d) To manage user accounts

6. What is the primary function of an interrupt vector?

- a) To store data
- b) **To store the addresses of interrupt service routines**
- c) To manage memory
- d) To manage files

7. What is the primary purpose of a device driver?

- a) **To manage hardware devices**
- b) To manage software applications
- c) To manage user accounts
- d) To manage network connections

8. What is the purpose of a semaphore in operating systems?

- a) **To manage access to shared resources**
- b) To manage memory allocation
- c) To interpret commands from the user
- d) To control CPU scheduling

9. What is the purpose of the chmod command in Unix/Linux?

- a) To change the system time and date
- b) **To change file permissions**
- c) To change the current directory
- d) To change the owner of a file

10. What is the purpose of the df command in Unix/Linux?

- a) **To display disk usage**
- c) To delete files

- b) To display file contents
- d) To display directory structure

11. What is the purpose of the fork() system call in Unix-like operating systems?

- a) To execute a new program
- c) To delete a file

- b) **To create a new process**
- d) To rename a file

12. What is the purpose of the mount command in Unix/Linux?

- a) **To mount a file system**
- c) To delete files

- b) To display files
- d) To create directories

13. What is the purpose of the passwd command in Unix/Linux?

- a) To display file permissions
- c) To display user information

- b) **To change the user password**
- d) To create a new user

14. What is the purpose of the swap space in Linux operating systems?

- a) To store temporary files
- c) **To act as an extension of RAM**

- b) To store system configuration files
- d) To store user files

15. What is thrashing in the context of operating systems?

- a) A type of file system
- b) A process that is swapped out too frequently
- c) **Excessive paging causing slowdown**
- d) A memory management technique

16. Which command is used to change file permissions in Unix-like operating systems?

- a) **CHMOD**
- b) CHOWN
- c) CHGRP
- d) PERM

17. Which command is used to create a directory in Unix/Linux?

- a) **mkdir**
- b) cd
- c) rm
- d) ls

18. Which command is used to delete a file in Unix-like operating systems?

- a) **RM Command**
- b) Del Command
- c) Erase Command
- d) Delete Command

19. Which command is used to display the current directory in Unix/Linux?

- a) **pwd**
- b) ls
- c) cd
- d) cat

20. Which command is used to display the manual pages for a command in Unix-like operating systems?

- a) Help Command
- b) **Man Command**
- c) Info Command
- d) Doc Command

21. Which command is used to terminate a process in Unix/Linux?

- a) stop
- b) **kill**
- c) end
- d) terminate

22. Which memory management scheme allows processes to be allocated memory wherever available?

- a) Contiguous memory allocation
- c) Segmentation
- b) **Paging**
- d) Fragmentation

23. Which of the following commands is used to change the current directory in Unix/Linux?

- a) **CD**
- b) MV
- c) CP
- d) CHDIR

24. Which of the following is a disk scheduling algorithm?

- a) Shortest Job First (SJF)
- b) Round Robin (RR)
- c) **First Come First Serve (FCFS)**
- d) Elevator (SCAN)

25. Which of the following is a non-preemptive scheduling algorithm?

- a) Round Robin (RR)
- b) Shortest Job First (SJF)
- c) **First Come First Serve (FCFS)**
- d) Priority Scheduling

26. Which of the following is a type of system call in operating systems?

- a) Process control
- b) File management
- c) Device management
- d) **All of the above**

27. Which of the following is not a component of the process control block (PCB)?

- a) Process state
- b) Program counter
- c) Memory usage
- d) **User interface**

28. Which scheduling algorithm uses priority levels to determine which process to execute next?

- a) Round Robin
- b) **Priority Scheduling**
- c) Shortest Remaining Time First (SRTF)
- d) First Come First Serve (FCFS)

Answer Key

1. **A** 2. **C** 3. **B** 4. **B** 5. **C** 6. **B** 7. **A** 8. **A** 9. **B** 10. **A** 11. **B** 12. **A** 13. **B** 14. **C** 15. **C** 16. **A** 17. **A** 18. **A** 19. **A**
20. **B** 21. **B** 22. **B** 23. **A** 24. **C** 25. **C** 26. **D** 27. **D** 28. **B**