

1911000102030001
First Year B.C.A (Sem) -II
Examination April-2023
Operating System - I

Seat No:

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[Time: Three Hours]

[Max. Marks: 70]

Student's Signature

Q.1 A) Select Appropriate correct option. [10]

- 1) What is the use of directory structure in the operating system?
 - a) The directory structure is used to solve the problem of the network connection in OS.
 - b) It is used to store folders and files hierarchically.
 - c) It is used to store the program in file format.
 - d) It is required to manage the data
- 2) _____ are used to communicate data between the peripheral devices and the system memory.
 - a) I/O Address b) Memory Address c) IRQ d) DMA channels
- 3) In the _____ algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.
 - a) SCAN b) LOOK c) C-SCAN d) C-LOOK
- 4) _____ Mode has no access to System hardware and Kernel code.
 - a) Kernel b) OS c) User d) Shell
- 5) _____ is a special interpreter program which can be used to execute commands of UNIX Operating System.
 - a) Shell b) Terminal c) Xmode d) Kernel
- 6) What is Linux?
 - a) single user, single tasking b) single user, multitasking
 - c) multi user, single tasking d) multi user, multitasking
- 7) To solve the problem of external fragmentation _____ needs to be done periodically
 - a) Compaction b) Check c) Formatting d) Replacing memory

- 8) Disk formatting are of which two types?
a) Logical, illogical b) Symmetric, Asymmetric c) Physical, Logical d) Hard, soft
- 9) ECC stands for _____
a) Error Collecting Codes b) Error Collaborating Codes
c) Edge Correcting Codes d) Error Correcting Codes
- 10) Boot strap is stored in
a) ROM b) RAM c) Cache d) Buffer

B) Answer The Following. (Any 5)

[10]

1. What is SPOOLING?
2. What is primary Goal of Operating System?
3. List out operating system which are multi-tasking, but not multi-user.
4. List out Attributes of File.
5. Define Seek time and rotational delay.
6. List out Basic Features of LINUX.
7. What is Device drive? Types of it.

Q.2 Answer The Following. (Any two)

[14]

- a) Explain different operations that can be performed on file.
- b) Describe different characteristics of I/O devices.
- c) Explain features of Linux operating system.

Q.3 Answer The Following. (Any two)

[14]

- a) Explain Elements of Linux operating system.
- b) Explain Multi-user operating system in detail.
- c) Explain different types of file access method in detail.

Q.4 Answer The Following. (Any two)

[10]

- a) Discuss evolution of an operating system.
- b) Explain different types of files with example.
- c) Comparison of Windows OS and Linux OS.

Q.5 Do the following. [12]

Suppose a disk drive has 200 cylinders number from 0-199. drive is currently served the request

at cylinder number 90. The queue for pending request in FIFO order is as follows:

15,41,144,93,73,179,137,125,69,45,36,11.

Show the disk scheduling for the following algorithm.

1. FCFS
2. LOOK
3. SCAN
4. SSTF