

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain Inter process communication.

Or

- (b) Describe the categories of system programs.

17. (a) Discuss critical-section problem.

Or

- (b) Discuss the characterization of deadlock.

18. (a) Elaborate segmentation with diagram.

Or

- (b) Discuss the basic concept of demand paging.

19. (a) Discuss the access methods of file.

Or

- (b) Elaborate directory and disk structure.

20. (a) Explain the history of LINUX.

Or

- (b) Describe memory management.

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M.C.A. (CBCS) DEGREE EXAMINATION,
APRIL 2017.

Second Semester

Computer Applications

OPERATING SYSTEMS

(For those who joined in July 2016 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which is a logical extension of multiprogramming?
(a) Process (b) Scheduling
(c) Multi-tasking (d) Exception
2. Which program manages the execution of user programs to prevent error?
(a) User (b) Control
(c) Bootstrap (d) System



3. The critical section followed by a _____ section.
 (a) Entry (b) Exit
 (c) Remainder (d) Mutual
4. A directed edge $P_i \rightarrow R_j$ is called a _____ edge.
 (a) Request (b) Response
 (c) Assignment (d) Equal
5. Which is commonly used in virtual memory systems?
 (a) Segmentation (b) Fragmentation
 (c) Swapping (d) Demand paging
6. Which memory involves the separation of logical memory from physical memory?
 (a) Virtual (b) Cache
 (c) Main (d) Secondary
7. Which object represents an Individual file?
 (a) Inode (b) File
 (c) Superblock (d) Dentry
8. The VFS is base on a file representation structure, called a _____.
 (a) Snode (b) Fnode
 (c) Vnode (d) Unode
9. Which path name begins at the root and follows a path down?
 (a) Temporary (b) Permanent
 (c) Absolute (d) Relative

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10. The direct access method is also called as _____ access.
 (a) Sequential (b) Direct
 (c) Relative (d) In direct

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Discuss the advantages of multiprocessor systems.
 Or
 (b) Elaborate the types of operating system.
12. (a) Discuss the dining-philosophers problem.
 Or
 (b) Elaborate monitors in process synchronization.
13. (a) Explain fragmentation with example.
 Or
 (b) Describe hashed page tables with example.
14. (a) Discuss the attributes of file.
 Or
 (b) Elaborate directory implementation.
15. (a) Explain the components of a Linux system.
 Or
 (b) Describe the parts of process control.

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