

**B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2019****SEMESTER – 6: COMPUTER APPLICATIONS (CORE COURSE)****COURSE: 15U6CRCAP11: OPERATING SYSTEMS**

*(Common for Regular - 2016 Admission / Supplementary-Improvement 2015 admission)*

Time: Three Hours

Max. Marks : 75

**PART A**Answer **all** questions. Each question carries **1** mark.

1. What is IPC?
2. What is a deadlock?
3. Which scheduling algorithm is best suitable for time sharing operating systems?
4. What is context switching?
5. Define Throughput.
6. What are Cooperating processes?
7. What is a binary semaphore?
8. Define Compaction.
9. What is a device queue?
10. What is Thrashing? (1 x 10 = 10)

**PART B**Answer **any eight** questions. Each question carries **2** marks.

11. Explain paging?
12. What is the basic difference between pre-emptive and non-pre-emptive scheduling?
13. What is process synchronization?
14. What is hashing?
15. What is Virtual Memory? How it is implemented?
16. What is reference string?
17. What are the basic functions of file management in OS?
18. Why is round robin algorithm considered better than first come first served algorithm?
19. What are turnaround time and response time?
20. What is fragmentation? What are the different types of fragmentation? (2 x 8 = 16)

**PART C**Answer **any five** questions. Each question carries **5** marks.

21. Explain LINUX shell.
22. Explain the necessary conditions for a deadlock.
23. Compare Contiguous Memory allocation and Noncontiguous memory allocation.
24. Explain semaphores and write a short note on it.

25. List some Linux networking and troubleshooting commands.
26. Explain Optimal Page Replacement Algorithm with a suitable example.
27. What are short, medium and long term schedulers? ( 5 x 5 = 25)

#### PART D

Answer **any two** questions. Each question carries **12** marks.

28. Explain different file access methods.
29. Explain Bankers algorithm for deadlock avoidance.
30. Explain any two CPU Scheduling Algorithms with suitable examples.
31. Explain any two directory structures with diagrams. (12 x 2 = 24)

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