Register No.:

# 668

## October 2017

*Time – Three hours*
*(Maximum Marks: 75)*

*[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART - A and PART - B.*

*(2) Answer division (a) or division (b) of each question in PART-C.*

*(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]*

### PART – A

1. List any two components of operating system.
2. Define context switch.
3. Define page and frame.
4. What is turnaround time?
5. List any two file operations.
6. List the different file system structure.
7. What is Linux?
8. Define page fault.

### PART – B

9. Define the concept of multiprogramming and time sharing.
10. What is a system call? Give one example.
11. Define pre emptive and non-pre emptive scheduling.
12. Describe the methods to recover deadlock.
13. What are the hardwares used for paging?
14. Explain the different types of files in Linux OS.
15. Explain any two file authentication methods.
16. Define sharing with an example.

[Turn over...

PART – C

17. (a) Explain the concepts of virtual machine and booting.

*(Or)*

(b) (i) Explain OS services of resource allocation and system protection.
(ii) Explain monolithic OS structure.

18. (a) Explain multiprocessor scheduling.

*(Or)*

(b) (i) Explain semaphores.
(ii) Explain message passing techniques.

19. (a) Explain the hardware and control structures for virtual memory.

*(Or)*

(b) Explain the following page replacement policies: (i)FIFO (ii)NRU.

20. (a) Explain any two disk scheduling algorithms.

*(Or)*

(b) Explain disk space allocation methods.

21. (a) Explain three levels of file security in Linux.

*(Or)*

(b) (i) Explain the features of Linux OS.
(ii) Explain ext2 file system.

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