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April 2018

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. What is virtual machine?

2. What is process control block?

3. Define thread.

4. What is compaction?

5. What is FIFO?

6. What is RAID?

7. Define sector.

8. Expand GNOME.

PART – B

9. What is RTOS? Give an example.

10. What is system call? What are its types?

11. What is the objective of scheduling?

12. Briefly explain race condition.

13. What is translation look aside buffer?

14. List the types of page replacement algorithm.

15. What is disk formatting?

16. What are the sub-systems of Linux?

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[Turn over.....

PART – C

17. (a) Explain any two operating system components.

    (Or)

    (b) Explain the structure of microkernel OS with a diagram.

18. (a) Explain the process states and their transitions.

    (Or)

    (b) Discuss deadlock detection and recovery.

19. (a) Explain fixed and variable partition in memory allocation.

    (Or)

    (b) With neat diagram explain the hardware support for paging.

20. (a) Explain any one disk scheduling algorithm.

    (b) Explain the security mechanisms.

21. (a) Explain the architecture of Linux.

    (Or)

    (b) Explain about virtual file system.

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