Q.P. Code : 25133

Second Semester B.Voc.(IT) Degree Examination, May/June 2019

(CBCS Scheme)

Computer Science

Paper BVIT 203 — OPERATING SYSTEMS

Time : 3 Hours] [*Max. Marks : 70*

Instructions to Candidates : Answers all the Sections.

SECTION – A

(10 × 2 = 20)

I. Answer any **TEN** of the following :

1. What is a real time system?

2. List any two functions of main memory management.

3. Differentiate between Pre-emptive and non-pre-emptive scheduling.

4. What is Race Condition with respect to concurrency control?

5. What is a semaphore? Name the types.

6. What is a Resource Allocation Graph?

7. What is compaction?

8. What is Hit ratio?

9. What is Combined Scheme?

10. What is disk formatting?

11. Define domain switching.

12. List the components of Kernel modules in a Linux Operating System.

SECTION – B

(5 × 10 = 50)

II. Answer any **FIVE** questions :

13. (a) What is system call? Explain any two of them. **(5)**

    (b) Explain process control block with a neat diagram. **(5)**

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14. (a) Explain SJF Scheduling. (6)

    (b) Explain the two level directory Structure. (4)

15. (a) Explain the producer-consumer problem. (6)

    (b) Explain any two aspects of file sharing. (4)

16. (a) Explain the deadlock detection algorithm for Single Instance Resource Type. (6)

    (b) Write a note on virtual memory. (4)

17. (a) Explain banker's algorithm in detail. (6)

    (b) What is working set model? Explain. (4)

18. (a) Explain the paging technique in detail. (6)

    (b) Write a note on fragmentation. (4)

19. (a) Explain the FIFO page replacement algorithm. (6)

    (b) Write any five differences between Windows and Linux operating system. (4)

20. (a) Explain Scan and C-Scan disk scheduling algorithm. (6)

    (b) Write a note on virus. (4)

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