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BOARD DIPLOMA EXAMINATION, (C-16)

MARCH/APRIL-2019

DIT- FOURTH SEMESTER EXAMINATION

OPERATING SYSTEMS

Time: 3 hours

Max. Marks: 80

PART-A

3x10=30M

Instructions: 1) Answer all questions.

2) Each question carries three marks.

3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

1) Define an operating system. List any three popular operating systems.

2) What is Spooling.

3) Differentiate between Process and Program.

4) What is a Semaphore? Give an example.

5) List the advantages of interprocess communication.

6) What is overlay.

7) Define fragmentation? List the types of fragmentations.

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8) List any 3 disk free space managing methods.

9) Define Latency time?

10) List any three objectives of file management systems.

PART-B

5x10=50M

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- Instructions:** 1) Answer any **five** questions.
2) Each question carries **ten** marks.
3) The answer should be comprehensive and the criterion for valuation is the content but not length of the answer.

- 11) Explain briefly the components of the Operating System.
- 12) Draw and explain the process State diagram?
- 13) a) What is a Process Scheduling? (2+4+4)
b) Explain SJF, Round robin Process Scheduling algorithms. Give examples.
- 14) a) State the necessary conditions for arising a Deadlock.
b) Briefly explain Deadlock Prevention methods with example.
- 15) Explain Single Partition and Multiple Partitions of memory. (5+5)
- 16) a) What is Virtual memory? (2+8)
b) How the logical address is mapped with physical address in virtual memory with an illustration.
- 17) a) List various Disk Scheduling algorithms? (2+4+4)
b) Explain any two Disk Scheduling algorithms with example.
- 18) Explain various File Access methods in detail.

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