

[Time:2.30 Hrs]

[Marks:75]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
 2. Figures to the right indicate full marks.
 3. Students answering in the regional language should refer in case of doubt to the main text of the paper in English.

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|-----------|---|-------------|
| Q1 | Answer any 4 from the following. | 20m |
| | 1) Define operating system and explain its functions. | |
| | 2) What is a system call? Explain types of system calls. | |
| | 3) Write a short note on Interprocess communication. | |
| | 4) Explain computing environment. | |
| | 5) Explain Operating system structure. | |
| | 6) What are multithreading models? | |
| Q2 | Answer any 4 from the following. | 20 m |
| | 1) What do you mean by Process scheduling? | |
| | 2) Explain critical section problem. | |
| | 3) Explain semaphores. | |
| | 4) What are the different CPU scheduling algorithms? Explain any one. | |
| | 5) What do you mean by deadlock? | |
| | 6) What is Deadlock prevention? | |
| Q3 | Answer any 4 from the following. | 20m |
| | 1) Explain the difference between Physical address space and Logical address space. | |
| | 2) What do you mean by Segmentation? | |
| | 3) What is Paging? | |
| | 4) Explain page replacement concept. | |
| | 5) What is disk scheduling? | |
| | 6) Explain File-system mounting. | |
| Q4 | Answer any 3 from the following. | 15 m |
| | 1) Explain threads. | |
| | 2) Explain multicore programming. | |
| | 3) Write a note on Mutex locks. | |
| | 4) How to recover from deadlock? | |
| | 5) Explain allocation methods. | |
| | 6) Explain free space management. | |