



RAN - 2111000306020086

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T.Y.B.Sc. (Computer Science) (Sem. VI) Examination April - 2023

606 - Operating System

Time: 2 Hours]

[Total Marks: 50

सूचना : / Instructions

(१)

नीचे दशविले निशानीवाणी विगतो उत्तरवली पर अवश्य लपववी.
Fill up strictly the details of signs on your answer book

Name of the Examination:

T.Y.B.Sc. (Computer Science) (Sem. VI)

Name of the Subject :

606 - Operating System

Subject Code No.: **2111000306020086**

Seat No.:

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Student's Signature

- (2) Answer all the questions.
- (3) Figures in the right indicates full marks
- (4) Illustrate your answer with necessary example, if required.

Q-1: Answer the following questions. [Any SEVEN]

[14]

1. Explain need of operating system.
2. Explain use of address bus and data bus.
3. What is interrupt driven I/O?
4. What is virtual memory?
5. Define deadlock.
6. Explain need of inter process communication.
7. What do you mean by safe state and unsafe state?
8. What is demand paging?
9. Explain the concept of mutual exclusion?

Q-2: Answer the following questions. [Any TWO]

[12]

- a) Explain various types of OS.
- b) Explain I/O using DMA, Programmed I/O and Interrupt driven I/O.
- c) How free space can be managed using garbage collection?

Q-3: Answer the following questions. [Any TWO] [12]

- a) List various functions of OS.
- b) Explain FCFS disk scheduling algorithm.
- c) Explain victim frame, page table, page fault and demand paging.

Q-4: Answer the following questions. [Any THREE] [12]

- a) Explain FCFS and SJF process scheduling algorithm.
 - b) Explain FIFO and LRU page replacement algorithm.
 - c) Explain FCFS and SSTF disk arm scheduling algorithm.
 - d) Explain steps for deadlock prevention and recovery.
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