

2111000306020086
EXAMINATION FEBRUARY-MARCH 2024
BACHELOR OF SCIENCE (SIXTH SEMESTER)
COMPUTER SCIENCE-XI (PAPER-606-OPERATING
SYSTEM) - LEVEL 2

[Time: As Per Schedule]

[Max. Marks: 50]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination: **BACHELOR OF SCIENCE (SIXTH SEMESTER)**
 - b. Name of the Subject: **COMPUTER SCIENCE-XI (PAPER-606-OPERATING SYSTEM) - LEVEL 2**
 - c. Subject Code No: **2111000306020086**
2. Sketch neat and labelled diagram wherever necessary.
 3. Figures to the right indicate full marks of the question.
 4. All questions are compulsory.
 5. Illustrate your answer with necessary example

Seat No:

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Student's Signature

Q.1 Answer the following questions. (Any Seven)

14

1. What is demand paging?
2. Define Process.
3. Differentiate between interrupts and system calls.
4. Briefly describe the purpose of garbage collection.
5. Define page table in virtual memory.
6. What does PCB stand for, and what information does it contain?
7. Define Deadlock.
8. Why is priority-based scheduling important in multitasking?

Q.2 Answer the following questions. (Any Three)

12

1. What is Operating System? Explain its evolution in detail.
2. Explain Non-contiguous memory allocation.
3. Explain the role of page tables in virtual memory systems.
4. What is file? Explain its attributes.

Q.3 Answer the following questions. (Any Three)

12

1. Explain the concept of inter-process communication.
2. Explain what is the role of I/O devices in a computer system?
3. Explain Segmentation in detail.
4. Explain the difference between a data bus and an address bus using simple language.

Q.4 Answer the following questions. (Any Two)

12

1. Consider work queue: 82, 170, 43, 140, 24, 16, 190 and there are 200 cylinders numbered from 0 - 199. The disk head starts at number 50. Calculate total time required for arm motion using SSTF and SCAN.
2. Explain Contiguous memory allocation and discuss its advantages and disadvantage.
3. Explain Directory structure and its operations.
