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Total No. of Questions : 07

B.Sc.(CS) (Sem.–4)
OPERATING SYSTEMS
Subject Code : BCS-405
M.Code : 72321
Date of Examination : 24-05-23

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and a student has to attempt any FOUR questions.**

SECTION-A

1. **Answer briefly :**

   a) Distinguish between a pipe and output redirection.

   b) What is a batch mode computing?

   c) What is a system program?

   d) What is a shell command?

   e) What is the swapping process?

   f) Why protection of file is required

   g) What is a thread?

   h) What is a device driver?

   i) Name any two multi user operating systems.

   j) What is the context switching?

2. **Explain the following:**

   a) Multitasking

   b) Time Sharing

3. Describe the differences between short term and long term scheduling.

4. What are the various functions of operating system?

5. What are the various page replacement algorithms?

6. What are the various characteristics of files? Explain.

7. a) Suppose that the head of moving head-disk with 200 tracks, numbered 0 to 199, has just finished a request at track 125. The queue of the requests is kept in FIFO order:

   86, 147, 91, 177, 94, 150, 102, 175, 130.

   b) What is the total number of head movements needed to satisfy requests for the following disk Scheduling algorithms:-

   i) FCFS

   ii) SSTF.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.