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MASTER OF SCIENCE (M.SC) IN COMPUTER APPLICATIONS
EXAMINATION : DECEMBER - 2023
SEMESTER - I

Sub.: Advanced Operating System (MSC-103-22)

Date : 29/12/2023

Total Marks : 60

Time: 10.00 am to 12.30 pm

Instruction:

1. All questions are compulsory unless and otherwise stated.
2. Bold figures to the right of every question are the maximum marks for that question.
3. Candidates are advised to attempt questions in order.
4. Answers written illegibly are likely to be marked zero.
5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
6. Draw neat and labelled diagram wherever necessary.

Q. 1. Answer the following in 2 - 3 lines. (Any 5) (10)

1. Define round robin scheduling.
2. What is the kernel of OS?
3. What are the benefits of virtualization?
4. What is a distributed operating system?
5. Define semaphores.
6. Define shell.
7. What is best fit algorithm?

Q. 2. Answer the following in short. (Any 4) (20)

1. Explain all file structure methods.
2. Explain the reason for process termination
3. What are 3 main objectives of OS design?
4. What are the benefits of virtual memory?
5. What is swapping? Explain constraints of swapping
6. What is deadlock in operating systems?

Q. 3. Answer the following in detail. (Any 3) (30)

1. Explain types of scheduling algorithms.
2. What is the difference between preemptive and non-preemptive scheduling?
3. Explain process states and PCB using diagram
4. What is segmentation in operating systems?
5. What is demand paging in operating systems?
