TILAK MAHARASHTRA VIDYAPEETH, PUNE
MASTER OF SCIENCE (M.SC) IN COMPUTER APPLICATIONS
EXAMINATION : JUNE/JULY - 2022
SEMESTER - I
Sub.: Advanced Operating System (MSC- 103-19)

Date : 01/07/2022 | **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 short term scheduling.
  2. What is multiprogramming ?
  3. Define the "Deadlock".
  4. Define the term "Virtual Memory"
  5. What is double buffering ?
  6. Define shell.
  7. List any two scheduling algorithms.

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

  1. Distinguish between paging and segmentation.
  2. Explain all file attributes.
  3. Distinguish between process and thread.
  4. Explain process states using PCB.
  5. Explain the methods used in deadlock handling.
  6. Explain role of operating system as a resource manager.

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

  1. Explain layered architecture using diagram.
  2. Explain scheduling with types and goals of scheduling.
  3. Explain virtual memory management policies.
  4. What is demand paging? State its ments & dements.
  5. Explain classical epic problems in synchronization with diagram.