



B.Tech III Semester Regular Examinations, February 2022
OPERATING SYSTEMS
(Information Technology)

Maximum Marks: 70

Date: 26.02.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Categorize the various types of system calls and explain with examples.
- 2 Write the difference between user view and System View?
- 3 Write about inter process communication?
- 4 Describe about semaphores and monitors.
- 5 Define swapping and its types.
- 6 Describe the structure of Page Table.
- 7 What is Thrashing?
- 8 Define Demand Paging.
- 9 Compare Access Matrix, Access Control and Access Rights revocation.
- 10 Write the Language based Protection in Operating systems?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Explain the Computer System Architecture, OS structure and Operations with neat sketch. 10M
- OR
- 12 Explain the system calls – fork(), exec(), wait(), exit() 10M
- 13 Explain in detail about Process, memory and storage management along with protection and security provided by Operating Systems. 10M
- OR
- 14 a) Explain Process Control Block. 5M
b) Explain various Processing Scheduling algorithms. 5M
- 15 Explain various page replacement algorithms with examples and evaluate them. 10M
- OR
- 16 Explain the difference between segmentation and paging with neat sketch and examples. 10M
- 17 Illustrate the File system Implementation and Free space management. 10M
- OR
- 18 Describe the various system calls for file operations with examples. 10M
- 19 Analyze the methods of handling deadlocks by prevention, avoidance, detection and recovery. 10M
- OR
- 20 Elaborate on the implementation of Windows VISTA Operating system features. 10M