

Instructions : A.) All the questions are compulsory.
B.) Draw neat diagrams with pencil wherever required.

- I. 1. State whether the following statements are True or False. (1 mk x 5 = 5 mks)
- Main Memory is Volatile Memory.
 - Program Counter is incremented after each fetch.
 - Resident Monitor is software always in memory.
 - Forward progress can be made in a deadlock.
 - Access Matrix design does not separate mechanism from policy.
2. Answer the following. (1 mk x 5 = 5 mks)
- What is Kernel ?
 - What is Thread ?
 - What is Swapping ?
 - What is Thrashing ?
 - What is Virtual Memory ?
- II. 1. Explain the major services of an Operating System. (2 mks)
2. Explain the External Fragmentation with an example. (3 mks)
3. Explain the Process State with the diagram. (5 mks)
- III. 1. Explain the System and Network Threats. (2 mks)
2. Explain the Load Balancing in Process Migration. (3 mks)
3. Explain the Readers-Writers Problem. (5 mks)
- IV. 1. Explain the concept of Trusted Systems. (2 mks)
2. Explain the advantages of Web based Operating System. (3 mks)
3. Explain the Shared Pages with an example. (5 mks)
- V. 1. Explain the Synchronization in Distributed Systems. (2 mks)
2. Explain the concepts of File System. (3 mks)
3. Explain the SSTF Disk Scheduling with an example. (5 mks)
