

S.No. 29

17PCS05

(For the candidates admitted from 2017-2018 onwards)

M.Sc. DEGREE EXAMINATION, APRIL/MAY 2018.

First Semester

Computer Science

ADVANCED OPERATING SYSTEMS

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) Explain the different design approaches of operating system.

Or

- (b) Describe the concept of a process.

2. (a) Briefly explain two types of communication networks.

Or

- (b) Explain the various communication primitives.

3. (a) Explain the mechanisms for building distributed file systems.

Or

(b) Explain any two algorithms for implementing distributed shared memory.

4. (a) What are the basic multiprocessor system architecture? Explain.

Or

(b) Explain different interconnection networks for multiprocessor systems.

5. (a) Explain various types of database systems in MOS.

Or

(b) Explain any two concurrency control algorithms.

PART B — (5 × 10 = 50 marks)

Answer ALL questions.

6. (a) Describe other types of synchronization problems.

Or

(b) Explain models of deadlocks.

7. (a) Discuss Deadlock Handling strategies in Distributed systems.

Or

(b) Explain distributed Deadlock Detection Algorithms.

8. (a) Explain coherence protocols for Distributed Shared Memory.

Or

(b) Describe the issues in load distributing.

9. (a) Explain the various types of Threads.

Or

(b) Discuss process synchronization in multiprocessor operating systems.

10. (a) Explain Distributed Database Systems in detail.

Or

(b) Describe any two Lock-Based Algorithms.