PYQs

Unit 3 Deadlock

- 6 Marks

3-d.	What do you understand by Deadlock? Write necessary conditions for occurring the deadlock in a system. (CO3)	6
3.e.	Elaborate the Bound Buffer problem in detail. (CO3)	6

Discuss the atomic operations of Semaphore and show how mutual exclusion can be implemented. (CO3)

Elaborate the Reader-Writer problem in detail. (CO3)

Discuss the classical problems of synchronization in detail. (CO3)

- 10 Marks

6-a.	Illustrate critical section problem along with the necessary conditions that must satisfy the solution. Explain any one solution. (CO3)	
6-b.	Discuss the inter-process communication schemes along with their advantages and drawbacks.(CO3)	
6-a.	Describe the Bounded - buffer problem and give a solution for the same using semaphores. Write the structure of producer and consumer processes. (CO3)	10
6-b.	What is critical section? Explain three necessary conditions for critical section problem in detail. (CO3)	10
6-a.	Explain the necessary conditions for a deadlock to occur with example. How deadlocks can be recovered? (CO3)	
6-b.	Write algorithm for Dining Philosopher problem and discuss the approaches for reducing deadlock condition. (CO3)	

Discuss in detail the critical section problem and also write the algorithm for Readers/Writers Problem with semaphores.(CO3)

Give solution for Producer/Consumer problem using Semaphores.(CO3)