

OR

AR – 643

Third Semester B. C. A. (Part – II) Examination

**ADVANCED OPERATING SYSTEM**

Paper – 3 ST 4

P. Pages : 3

Time : Three Hours] [Max. Marks : 60

1. (a) What are the different functions of an Operating System ? Explain in brief. 6

(b) Explain :

(i) Block State.

(ii) Suspend.

OR

2. (a) Explain process Control Block. 6

(b) What are the functions of a Process Management System ? 6

3. (a) Explain Mutual Exclusion Primitives. 6

(b) Explain Monitors with suitable example. 6

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4. (a) What is Semaphore ? What types of operations can be performed on a semaphore? 6  
 (b) Explain the concept of critical regions. 6
5. (a) Define deadlock. Write and explain Bankers algorithm for deadlock avoidance. 6  
 (b) Explain the following :—  
 (i) Deadlock detection.  
 (ii) Resource Allocation. 6

OR

6. (a) Explain Four Modification for deadlock. 6  
 (b) Explain deadlock recovery. 6
7. (a) What are the main advantages of Multi-programming ? Explain with example. 6  
 (b) Explain the architecture for Paging Mechanism. 6

OR

8. (a) Explain the storage organization. 6

- (b) What is Strategies ? Explain page replacement strategies. 6

9. (a) Explain processor scheduling. 6  
 (b) Explain fair share scheduling. 6

OR

10. (a) Explain the following :—  
 (i) HRN.  
 (ii) JOB. 6  
 (b) Explain Priority scheduling or Priority queue. 6

