AM–235

B.C.A Part – II Semester – III Examination

ADVANCED OPERATING SYSTEM – 3ST4

Time—Three Hours] [Maximum Marks—60

N.B. :— (1) **ALL** questions are compulsory.

(2) Assume suitable data wherever necessary.

1. (a) What is process management ? Explain its terms, suspend and reserve. 6

(b) Differentiate process state transition and process control block. 6

OR

2. (a) Explain in detail parallel processing. 6

(b) Explain following terms :

(i) Parend

(ii) Peterson's algorithm

(iii) Concurrent programming. 6

3. (a) Differentiate Semaphores P and Semaphores V. 6

(b) State and explain Dekkers algorithm. 6

OR

4. (a) Describe with suitable example of message passing. 6

   (b) What is recovery ? Give the example of deadlock detection. 6

5. (a) What is control structure for indicating parallelism ? 6

   (b) Write an algorithm for Banker's and explain deadlock recovery. 6

OR

6. (a) What is fragmentation ? Why is it needed to fragment memory ? 6

   (b) Explain how deadlock can prevented. 6

7. (a) Explain the term segmentation in detail. 6

   (b) What is virtual storage space ? Explain page fault. 6

OR

8. (a) Explain the term JOB scheduling and processor scheduling. 6

   (b) Explain the following terms :

   (i) Round Robin

   (ii) Page replacement strategies. 6

9. (a) What criteria are to be used for Demand paging ? 6

   (b) Explain storage management in detail. 6

OR

10. (a) Differentiate single contiguous storage allocation and non-contiguous storage allocation. 6

    (b) Explain storage hierarchy. Give the criteria of scheduling. 6