Exam. Code : 107205
Subject Code : 2118

BCA 5th Semester

OPERATING SYSTEM

Paper–III

Time Allowed—3 Hours] [Maximum Marks—75

Note :– Attempt any **five** questions. All questions carry equal marks.

1. Describe the salient features of the following systems :
   (a) Multi-programmed Systems 7.5
   (b) Batch Systems. 7.5
2. Explain the following process transitions :
   (a) Running to Blocked 5
   (b) Running to Ready 5
   (c) Ready to Running. 5
3. Discuss the classical problem of Synchronization and the methods for process synchronization. 15
4. Compare the following :
   (a) Segmentation and Demand Paging 7.5
   (b) LRU and FIFO page replacement Algorithm. 7.5
5. How memory management is carried out by an Operating System ? Discuss in detail the role of swapping techniques. 15

6. How C-LOOK and SSTF algorithms schedule the disk requests ? Compare them using an example. 15

7. Discuss the following methods for handling deadlocks :

   (a) Deadlock Detection 7.5

   (b) Deadlock Recovery. 7.5

8. Write short notes on the following :

   (a) Deadlock Avoidance 7.5

   (b) Thrashing. 7.5