GSQ/D-22   **1174**

OPERATING SYSTEM-I
BCA-352

Time : Three Hours]   [Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

(Compulsory Question)

1. With reference to the operating system, answer the following :   2×8=16

    (i)   Multiprocessing   (ii)   Distributed

    (iii) FCFS   (iv)   Process

    (v)   Semaphore   (vi)   Swapping

    (vii) Deadlock   (viii) LRU

Unit I

2. Define Operating System. Explain its characteristics and components.   16

3. Explain the terms Batch, Timesharing, Parallel and Distributed with reference to Operating System.   16

Unit II

4. Define process and thread. Explain Process Control Block. 16

5. Explain FCFS, SJF, Priority, Multilevel Queue scheduling algorithms. 16

Unit III

6. Explain Prevention, Avoidance, Detection and Recovery with reference to dealock. 16

7. Explain Partition, Paging, Fragmentation and Segmentation with reference to memory management. 16

Unit IV

8. Explain FIFO, Optimal and LRU page replacement algorithms. 16

9. Explain various file allocations methods. 16