

Exam. Code : 105705

Subject Code : 1473

B.Sc. Information Technology 5th Semester

OPERATING SYSTEM

Paper-II

Time Allowed—3 Hours] [Maximum Marks—100

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

1. Define an Operating System. Discuss the different types of Operating Systems.
2. Define a Process. How is it different from a program ? What is process scheduling ? Explain various process states.
3. Discuss the following scheduling algorithms with suitable examples :
 - (a) FCFS
 - (b) SJF
 - (c) SRTF
 - (d) Round Robin.

4. Define and distinguish between paging and segmentation methods of memory management giving suitable examples.
5. What do you mean by virtual memory ? What are its advantages and disadvantages ? List various page replacement algorithms. Discuss any one in detail.
6. What do you mean by I/O management ? Discuss in detail the operating system services in I/O and device management.
7. Elaborate in detail the Banker's algorithm.
8. Write short notes on the following :
 - (a) Spooling
 - (b) CPU-I/O cycle
 - (c) Page faults
 - (d) Semaphores.