

BT - 5 / D-19

OPERATING SYSTEM

Paper-IT-357 (Opt-I)

Time allowed : 3 hours]

[Maximum marks : 100

Note:- Attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

1. (a) Describe the functions of operating system. 10
(b) What do you understand by real time systems? Explain. 10
2. (a) Explain the role of PCB in creation of process. 10
(b) Discuss the critical section problem with suitable example. 10

Unit-II

3. (a) Differentiate between preemptive and non-preemptive scheduling. 10
(b) Explain SJF scheduling with the help of a suitable example. 10
4. (a) What is the advantage of using virtual memory concept. 10
(b) Explain page fault handling with the help of suitable example. 10

Unit-III

5. (a) What do you understand by file and its attributes? Explain file operations. 10
(b) Write a short note on directory structures. 10
6. (a) How do operating system manage free space. 10
(b) Describe dedicated devices, shared devices and virtual devices. 10

Unit-IV

7. (a) Discuss distributed system. 10
(b) What do you mean by RPC? Explain its basic operations. 10
8. (a) Explain NFS architecture and protocol. 10
(b) How IPC is done in Linux? Explain. 10