

Paper 5 : 2015 ANNUAL COMPUTER OPERATING SYSTEM

Note : Attempt any two parts from each question. All questions carry equal market.

UNIT - 1

1. (a) What are the fundamental services of operating system?
(b) What are batch processing and real time systems?
(c) What is spooling ? What are various views of operating system ?

UNIT - 2

2. (a) What is process control block ? Explain various types of schedulers.
(b) Find average waiting time, response time for preemptive shortest job first algorithm for the following :

Process	CPU Burst	Arrival
P ₁	5	0
P ₂	3	1
P ₃	2	2

- (c) Explain master/slave scheduling multiprocessor scheduling algorithms.

UNIT - 3

3. (a) Explain any two disk scheduling algorithms.
(b) What do you mean by fragmentation ? What are its various types ?
(c) Explain any two page replacement algorithms with the help of suitable example.

UNIT - 4

4. (a) What are various methods for free space management ?
(b) Explain various file allocation methods.
(c) What are various types of files ? Explain file systems.

UNIT - 5

5. (a) What are various necessary conditions for deadlock to occur ?
(b) Explain banker's algorithm
(c) What are various methods through which a system can recover from deadlock ?