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CSIT123
[ET]

Enrol. No.

END SEMESTER EXAMINATION : DECEMBER, 2017

OPERATING SYSTEM CONCEPTS

Time : 3 Hrs.

Maximum Marks : 70

Note: Attempt questions from all sections as directed.

SECTION – A (30 Marks)

Attempt any five questions out of six.

Each question carries 06 marks.

1. Describe SPOOLING with the help of a diagram.
2. Describe the structure of Hard Disk with the help of a diagram.
3. Discuss Access Matrix model of protection with the help of a diagram.
4. Describe the architecture of UNIX with the help of a diagram.

P.T.O.

(R35)

5. Describe Process Control Block (PCB) with the help of a diagram.
6. Write down the advantages and disadvantages of fixed partitioning of memory.

SECTION – B (20 Marks)

Attempt any two questions out of three.

Each question carries 10 marks.

7. Discuss contiguous allocation of disk space with the help of a diagram. List the advantage and disadvantages of the same.
8. Describe FIFO page replacement algorithm for memory with three frames with the help of an example.
9. Estimate average waiting time and average turnaround time for the following processes using First Come First Serve (FCFS) CPU scheduling algorithm :

<u>Process ID</u>	<u>CPU Burst</u>
P1	4
P2	6
P3	3
P4	5

(R35)

SECTION – C (20 Marks) (Compulsory)

10. (a) Describe deadlock with the help of a diagram. Explain all the necessary conditions for deadlock to occur. (10)
- (b) Describe the principle of operation of Variable Partition Allocation of memory with a diagram. (10)

(R35)

(100)