MSc (DDE) 3rd Semester Exam 2018

Subject: Computer Science

Paper: MCS-302

Full Marks: 45 Time: 2 Hours

Answer any nine questions

(All questions carry equal marks of 5)

1. Differentiate between serial and Batch processing.

2. Explain the relation between waiting time and turn-around time of a process in a system.

3. When a transition takes place from running state to ready state of a process?

4. Discuss the benefits of Multithreading.

5. Using Shortest Remaining Time First CPU Scheduling algorithm calculate the average waiting time of the given problem.

Process	Burst Time	Arrival Time
P1	4	0
P2	3	1
P3	2	2
P4	1	3

6. Why wait for graph is used in Deadlock?

7. Using Optimal Page Replacement algorithm find the page fault rate of the given reference with 3 frames.   1, 2, 3, 4, 1, 2, 5, 6, 7, 5, 2, 1, 8, 3, 2, 1

8. Explain the bounded waiting concept in Counting Semaphore.

9. Calculate average head movement of the given reference with total 200 cylinder, and the starting head position is 50 using C-SCAN disk scheduling algorithm.
45, 130, 54, 12, 190, 60, 40, 100

10. Explain the concept of indexed sequential file accessing technique.

11. Explain the concept of UNIX system calls in brief.