SURESH GYAN VIHAR UNIVERSITY Accredited by NAAC with 'A' Grade		INTERNAL ASSIGNMENT - 1
Course	**MCA**	**Operating System Concepts**
Semester	**1**	
Total Marks:	**15**	

Q.1. Write answers for any two questions from below. (5 marks each – Word limit – 500)

A. Discuss the procedure for handling the page fault in demand paging.

B. For 3 page frames, the following is the reference string : 7 0 1 2 0 3 0 4 2 3 0 3 2 1 2 0 1 7 0 1
How many page faults does the LRU page replacement algorithm produce? Explain.

C. Explain and compare the FCFS and SSTF disk scheduling algorithms.

Q.2. Write short notes on all of the following topics (1 mark each - Word limit - 100)

A. What is a Virtual Memory? Discuss the benefits of virtual memory technique.

B. Resource-Allocation graph

C. Define Monitor. Explain how it overcomes the drawback of semaphores.

D. Draw MS-DOS Operating System structure and Explain.

E. Can traps be generated by a user program?

SURESH GYAN VIHAR UNIVERSITY Accredited by NAAC with 'A' Grade		INTERNAL ASSIGNMENT - 2
Course	**MCA**	**Operating System Concepts**
Semester	**1**	
Total Marks:	**15**	

Q.1. Write answers for any two questions from below. (5 marks each – Word limit – 500)

A. Discuss Mutual-exclusion implementation with test and set() instruction.

B. Discuss various issues involved in selecting appropriate disk scheduling algorithm.

C. Write in detail about the thread libraries.

Q.2. Write short notes on all of the following topics (1 mark each - Word limit - 100)

A. The various security issues that arise in multiprogramming and time-shared systems.

B. What is the purpose of paging the page tables?

C. What is a Critical Section problem? Give the conditions that a solution to the critical section problem must satisfy.

D. What is Thrashing?

E. Counting and Binary semaphores.