

S.D.E.

M.C.A. Sem -II (Old Course) : SUMMER - 2019
SUBJECT : OPERATING SYSTEMS

Day : Friday
Date : 03/05/2019

S-2019-5256

Time : 02.00 PM TO 05.00 PM
Max. marks : 80

N.B.

- 1) Attempt **ANY FOUR** questions from Section – I and **ANY TWO** questions from Section – II
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Answers should be written in **SAME** answer book.

SECTION – I

- Q.1** Differentiate between implicit tasking and explicit tasking. **(12)**
- Q.2** What is operating system? Discuss various types of operating systems. **(12)**
- Q.3** Explain the terms **(12)**
a) Error Handling
b) Semaphore
- Q.4** What is deadlock? How to detect and avoid the deadlock occurrences? **(12)**
- Q.5** Write short notes on **ANY TWO** of the following. **(12)**
a) Systems calls
b) Scheduling
c) Interposes Communication

SECTION – II

- Q.6** Consider the following **(16)**

Process	P1	P2	P3	P4
CPU time	8	7	15	12

Using FCFS (First Come First Serve) algorithm find the average time and average turnaround time if the order is P1, P2, P3, P4.

- Q.7** Consider the following **(16)**

Process	P1	P2	P3	P4
CPU time (millisecond)	8	7	3	4

Time slice = 2 millisecond.

Calculate waiting time for the process and average waiting time using RR (Round Robin) Scheduling Algorithm.

- Q.8** For the memory with 3 page frames and the following reference strings **(16)**
4 3 4 1 2 5 3 2 1
Find out the number of page faults for FIFO (First In First Out) page replacement algorithm.

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