

Total No. of Questions : 4]

PC55

SEAT No. :

[Total No. of Pages : 2

[6360]-56

T.E. (Information Technology) (Insem)
OPERATING SYSTEMS
(2019 Pattern) (Semester - I) (314442)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Attempt Q1 or Q2, Q3 or Q4.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

Q1) a) What is multiprogramming, multitasking and multiprocessing? Discuss with an example. [5]

b) Define operating system. Discuss objectives and functions of operating system. [5]

c) Discuss following command with an example - pwd, ps, touch, fork, uniq. [5]

OR

Q2) a) Explain serial processing OS and simple batch OS. [5]

b) Write a shell script to identify whether the given string is palindrome or not. [5]

c) Describe the read and echo commands with various options in BASH scripting. Provide an example of how you can use it. [5]

P.T.O.

- Q3)** a) How does a process move between different states in an operating system. Explain with the help of state transition diagram. [7]
- b) Consider a multitasking OS, with four tasks, with the length of the CPU burst time given in milliseconds.

Process	Arrival Time	Burst Time	Priority
1	0	3	4
2	2	6	2
3	4	4	3
4	5	2	6

Draw the Gantt chart. Using SJF (non preemptive) and priority (preemptive). Scheduling algorithms. Find average WT and average TAT also. [8]

OR

- Q4)** a) Illustrate the difference between process and thread. Explain the typical entries in PCB and thread control block. [7]
- b) Explain the various types of processor schedules with the help of process state transitions. [8]

