Total No. of Questions : 4]

SEAT No. :

PC55

[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, jf 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 more 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 premptive) and priority (premptive). 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]**