7E4051

Roll No. : _____ Total Printed Pages : 2

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B. Tech. (Sem. VII) (Main/Rack) Examination, December-2012
Electronics & Comm.
7EC6.3 Operating System (Common for 7EX6.3)

Time : 3 Hours] [Maximum Marks : 80
[Min. Passing Marks : 24

Attempt any Five questions selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and started clearly. Units of quantities used/calculated must be stated clearly).

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. NIL 2. NIL

UNIT - I

1 How does windows handle various operating system services ? Explain. **16**

OR

1 How does Linux support various operating system responsibilities ? Explain. **16**

UNIT - II

2 There are 4 processes with 10, 2, 9, 8 CPU bursts. Compute average waiting time for FCFS and SJF scheduling. **16**

OR

2 There are 4 processes with 2, 9, 7, 17 CPU bursts. Compute turn around time for round Robin and preemptive SJF scheduling. Assume time quantum as 4 units. The processes assigned at 0, 3, 2, 1 time respectively. **16**

UNIT - III

3 Consider the following page reference string

1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6

How many page faults would occur for FIFO and LRU page replacement algorithms. Assume 3 frames available in memory.

OR

3 Consider the page trace given in above question' compute the number of page faults occurred for LRU and Optimal replacement algorithm. Assume 4 frames available in memory.

UNIT - IV

4 (a) What do you understand by program threats ?

(b) Differentiate among trap door, virus, worm and trojan horse.

OR

4 Explain 2 schemes of free-space management.

UNIT - V

5 Is there any difference among deadlock avoidance and deadlock prevention and deadlock detection with recovery ? Explain.

OR

5 Is the system in a safe state ?

The status of the system is _____

	Allocation	Max	Available
	A B C D	A B C D	A B C D
P_0	0 0 1 2	0 0 1 2	1 5 3 0
P_1	1 0 0 0	1 6 5 0	
P_2	1 3 4 4	2 3 5 6	
P_3	0 4 3 2	0 6 4 2	
P_4	0 0 2 4	0 5 5 6	