CONTINUOUS INTERNAL EVALUATION- 1

Dept:CSE	Sem / Div:4/ A & B	Sub:Operating Systems	S Code:18CS43
Date:25/05/2021	Time: 9:30-11:00 AM	Max Marks: 50	Elective:N
Note: Answer any 2 full questions, choosing one full question from each part.			

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QN		Questions	Marks	RBT	COs
		PART A			
1	a	Explain role of operating system from different view points. Explain the dual mode operation of an operating system.	9	L2	CO1
	b	Explain the UNIX system structure and layered approach structure of an operating system.	8	L2	CO1
	c	With neat diagram explain the concept of virtual machine,	8	L2	CO1
		OR			
2	a	Distinguish between the following terms: i) Multiprogramming and multitasking ii) Multiprocessor systems and clustered systems.	9	L2	CO1
	b	Compare and contrast short term, medium term and long term scheduling.	8	L1	CO1
	c	Describe the implementation of inter-process communication using shared memory and message passing techniques .	8	L2	CO1
		PART B			
3	a	Draw the Gantt Chart and Calculate average waiting time and turn around time for the following snapshot of processes using (consider lower number = highest priority) 1.Preemptive priority 2. Preemptive SJF.(SRTF) 3. Round Robin(TQ=2ms)	9	L3	CO2
	b	Explain the different multithreading issues in detail.	7	L2	CO2
	c	Draw the Gantt Chart and Calculate average waiting time and turn around time for the following snapshot of processes using (consider lower number = highest priority)	9	L3	CO2

Process	Burst Time	Arrival Time	Priority
p1	8	0	3
p2	9	0	1
p3	4	3	4
p4	1	5	2

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		1. FCFS 2. Non preemptive SJF. 3. Non preemptive priority **Process** / **Burst Time** / **Priority** p1 / 8 / 5 p2 / 2 / 2 p3 / 1 / 3 p4 / 6 / 1			
		OR			
4	a	Draw the Gantt Chart and Calculate average waiting time and turn around time for the following snapshot of processes using (consider lower number = highest priority) 1. Preemptive priority 2. Preemptive SJF.(SRTF) 3. Round Robin(TQ=2ms) **Process** / **Burst Time** / **Arrival Time** / **Priority** p1 / 7 / 0 / 4 p2 / 6 / 2 / 3 p3 / 3 / 3 / 2 p4 / 10 / 5 / 5	9	L3	CO2
	b	Explain the multithreading models with neat diagrams.	7	L2	CO2
	c	Draw the Gantt Chart and Calculate average waiting time and turn around time for the following snapshot of processes using (consider lower number = highest priority) 1. FCFS 2. Non preemptive SJF. 3. Non preemptive priority **Process** / **Burst Time** / **Priority** p1 / 3 / 4 p2 / 1 / 1 p3 / 5 / 6 p4 / 4 / 3	9	L3	CO2