SR 22

SET-1

St. Peter's Engineering College (Autonomous) Dullapally (P), Medchal, Hyderabad – 500100. I - Mid Term Examination – February 2025						Dept.	:	CSM
						Academic Year 2024-25		
Subject Code	:	AS22-05PC02	Subject	:	OPERATING SYSTEM			
Class/Section	:	B. Tech.	Year	:	II	Semester	:	II
Duration	:	120 Min	Max. Marks	:	30	Date:	:	

BLOOMS LEVEL					
Remember	L1	Understand	L2	Apply	L3
Analyze	L4	Evaluate	L5	Create	L6

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PART – A (10x1M = 10M)

Note: Answer all Questions. Each Question carries equal marks.

Q. No	Question (s)	Marks	BL	CO
	UNIT – I			
1	**a)** What is an Operating System	**1M**	L1	1
	b)Define Time-Shared Operating system	**1M**	L1	1
	c) Distinguish between Process andthread	**1M**	L2	1
	d) Define a System call	**1M**	L1	1
	UNIT – II			
	e) Define Non-Preemptive scheduling	**1M**	L1	2
	f) Define "Turnaround-Time" in the context of CPU scheduling	**1M**	L1	2
	g)Define Hold and Wait Condition in Deadlock	**1M**	L1	2
	h) Define a Deadlock	**1M**	L1	2
	UNIT – III			
	i) Define the Critical Section problem	**1M**	L1	3
	j) Define Counting Semaphore	**1M**	L1	3

PART – B (20M)

Q. No	Question (s)	Marks	BL	CO
	UNIT – I			
2	a) Explain in detail about components of a operating system	**4M**	L4	1
	b) Write short notes ontypes of operating system	**4M**	L2	1
	OR			
3	a) Explain in detail about System calls	**4M**	L4	1
	b) Explain in detail about Process concept	**4M**	L4	1
	UNIT – II			
4	a) Explain in detail about any one Scheduling Technique	**4M**	L4	2
	b)Explain in detail about Multiple Processor scheduling	**4M**	L4	2
	OR			
5	a)Explain in detail about Methods for Handling Deadlock	**4M**	L4	2
	b)Explainin detail about Deadlock Detection.	**4M**	L4	2
	UNIT – III			
6	Explain in detail about ProcessSynchronization	**4M**	L4	3
	OR			
7	Explain in detail Bounded Buffer Problem.	**4M**	L4	3

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SET-2

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						Academic Year 2024-25		
Subject Code	:	AS22-05PC02	Subject	:	OPERATING SYSTEM			
Class/Section	:	B. Tech.	Year	:	II	Semester	:	II
Duration	:	120 Min	Max. Marks	:	30	Date:	:	

BLOOMS LEVEL					
Remember	L1	Understand	L2	Apply	L3
Analyze	L4	Evaluate	L5	Create	L6

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PART – A (10x1M = 10M)

Note: Answer all Questions. Each Question carries equal marks.

Q. No	Question (s)	Marks	BL	CO
	UNIT – I			
1	**a)**Define Real Time Operating System	**1M**	L1	1
	b)List out the OS Services	**1M**	L1	1
	c) Discuss about Stages included in OS	**1M**	L2	1
	d) Define Uni-Programming System	**1M**	L1	1
	UNIT – II			
	e)Define Non-Preemptive scheduling	**1M**	L1	2
	f) Define "Arrival Time" in the context of CPU scheduling	**1M**	L1	2
	g)Define Dispatcher in CPU Scheduling	**1M**	L1	2
	h) Define Mutual Exclusion	**1M**	L1	2
	UNIT – III			
	i)Define Hardware Synchronization	**1M**	L1	3
	j) Define Binary Semaphore	**1M**	L1	3

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PART – B (20M)

Q. No	Question (s)	Marks	BL	CO
	UNIT – I			
2	a) Explain in detail about Multi-Programming system	**4M**	L4	1
	b)Discuss about Simple-Batch system	**4M**	L2	1
	OR			
3	a) Explain in detail about Process Management	**4M**	L4	1
	b) Explain in detail about Distributed Systems and its advantages	**4M**	L4	1
	UNIT – II			
4	a) Discuss about First Come First Serve Scheduling Algorithm	**4M**	L2	2
	b) Discuss about Priority Scheduling Algorithm	**4M**	L2	2
	OR			
5	a) Explain in detail about the Necessary conditions for Deadlock	**4M**	L4	2
	b) Explain in detail about Deadlock Prevention	**4M**	L4	2
	UNIT – III			
6	Discuss about Producer Consumer Problem	**4M**	L2	3
	OR			
7	Explain in detail about Reader Writer's Problem	**4M**	L4	3

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SET-3

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						Academic Year 2024-25		
Subject Code	:	AS22-05PC02	Subject	:	OPERATING SYSTEM			
Class/Section	:	B. Tech.	Year	:	II	Semester	:	II
Duration	:	120 Min	Max. Marks	:	30	Date:	:	

BLOOMS LEVEL					
Remember	L1	Understand	L2	Apply	L3
Analyze	L4	Evaluate	L5	Create	L6

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PART – A (10x1M = 10M)

Note: Answer all Questions. Each Question carries equal marks.

Q. No	Question (s)	Marks	BL	CO
	UNIT – I			
1	**a)**List any four functions of Operating System	**1M**	L1	1
	b)Define an Interrupt	**1M**	L1	1
	c)Define Operating System	**1M**	L2	1
	d) Define Client Server System	**1M**	L1	1
	UNIT – II			
	e)Define Burst-Time of a Process.	**1M**	L1	2
	f) Define Completion-Time in the context of CPU scheduling	**1M**	L1	2
	g)Define Throughput in CPU Scheduling	**1M**	L1	2
	h) Define Circular Wait condition	**1M**	L1	2
	UNIT – III			
	i)Define Cooperative processes	**1M**	L2	3
	j) Define Critical Section Code	**1M**	L1	3

PART – B (20M)

Q. No	Question (s)	Marks	BL	CO
	UNIT – I			
2	a) Explain in detail about Evolution of Operating System	**4M**	L4	1
	b)Discuss about Parallel Operating System	**4M**	L2	1
	OR			
3	a) Explain in detail about Operations on Processes	**4M**	L4	1
	b) Explain in detail about Memory Management	**4M**	L4	1
	UNIT – II			
4	a) Discuss about Round Robin Scheduling Algorithm	**4M**	L2	2
	b) Discuss about Shortest Job First- Non-Preemptive Scheduling	**4M**	L2	2
	OR			
5	a) Explain in detail about Resource Allocation Graph	**4M**	L4	2
	b) Explain in detail about Banker's Algorithm.	**4M**	L4	2
	UNIT – III			
6	Discuss about Dining- Philosophers Problem	**4M**	L2	3
	OR			
7	Explain in detail about Sleeping Barber Problem	**4M**	L4	3

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