	Subject Code:	A	CS	B	50	40	3
Roll No:							

## NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA. (An Autonomous Institute)

Affiliated to Dr. A.P. J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

Course B. Tech Branch CSBS

Semester IV

Sessional Examination-I

Year- (2021 - 2022)

Subject Name: OPERATING SYSTEMS

Time: 1.15 Hours

[SET-A]

Max. Marks:30

## **General Instructions:**

> This Question paper consists of 2 pages & 5 questions. It comprises of three Sections, A, B, and C

Section A -Question No- 1 is objective type questions carrying 1 mark each, Question No- 2 is very short answer type carrying 2 mark each. You are expected to answer them as directed.

Section B - Question No-3 is Short answer type questions carrying 5 marks each. Attempt any two out of three questions given.

**Section C** - Question No. 4 & 5are Long answer type (within unit choice) questions carrying 6 marks each. Attempt any one part <u>a or b.</u>

		SECTION - A	[08Marks]	
1.	All	questions are compulsory	(4×1=4)	
	a.	Machine which does not required operating system	(1)	CO1
		Bare Machine		
		2. Wear and Tear Machine	100 100 100	
		3. IBM 701		
		4. All of above		
Table 1	b.	Which system call is used to terminate a process abnormally	(1)	
		1. Stop()		
		2. End()		
		3. Exit()		
		4. Abort()		
	c.	Which one of the following is not a state of Process	(1)	
		1. New		
	2-1-1	2. Ready		
		3. Stop		
		4. Wait		
	d.	Program is a/an	(1)	
		1. Active Entity	- 1000	
		2. Passive Entity		4
		3. Creative Entity		
		4. Both (a) and (c)		
2.	AIL	questions are compulsory	(2×2=4)	~~
	a.	What is Operating System	(2)	COI
	b.	Define Kernel	(2)	
HUN		SECTION – B	[10Marks]	

a. What is SYSGEN? What kind of information is determined by it?  b. What are the differences between Hard-RTOS and Soft-RTOS?  c. What is System Call? Explain with example  c. What is System Call? Explain with example  3. What are the functions of Operating System?  6. Explain 5 states Process states Transition with diagram.  6. Answer any one of the following-  a. What are the different types of Operating System? Explain any one in Operatial.  b. What are the differences between Preemptive and non-preemptive CPU scheduling? Calculate Average Waiting Time and Average Turn Around Time for Preemptive SJF and Non-preemptive SJF (SRTF) for the following process.  Process Arrival Time Burst Time  P1 0 8  P2 1 4  P3 2 9  P4 3 3 5		NAME OF TAXABLE PARTY.		g-	two of the followin	swer any	STATE OF THE PERSON NAMED IN	3.
c. What is System Call? Explain with example  SECTION - C  [12Marks]  4 Answer any one of the following-  a. What are the functions of Operating System?  b. Explain 5 states Process states Transition with diagram.  (6)  Answer any one of the following-  a. What are the different types of Operating System? Explain any one in Detail.  b. What are the differences between Preemptive and non-preemptive CPU scheduling? Calculate Average Waiting Time and Average Turn Around Time for Preemptive SJF and Non-preemptive SJF (SRTF) for the following process.  Process Arrival Time Burst Time  P1 0 8  P2 1 4  P3 2 9  P4 3 5 5	CC	(5)	etermined by it?	nd of information is de	SYSGEN? What k	What is		
SECTION - C    12Marks    4		The same is not the owner of the last of t	Soft-RTOS?	tween Hard-RTOS and	e the differences be	What a	THE RESIDENCE AND PERSONS NAMED IN	
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5. Answer any one of the following- a. What are the differences between Preemptive and non-preemptive CPU scheduling? Calculate Average Waiting Time and Average Turn Around Time for Preemptive SJF and Non-preemptive SJF (SRTF) for the following process.  Process Arrival Time Burst Time Pl 0 8 P2 1 4 P3 2 9 P4 3 5		(1×6=6)		g-	one of the followin	swer any	Ansv	4
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