



**JSS MAHAVIDYAPEETHA**  
**JSS ACADEMY OF TECHNICAL EDUCATION, NOIDA**  
**DEPARTMENT OF INFORMATION TECHNOLOGY**

<b>Roll No.</b>											
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**CIA-I**

**AY 2020-21 (Even Semester)**

**Course : B.Tech**  
**Semester : IV**  
**Subject : Operating System**  
**Time : 9.30am-11.00am**

**Date : 10-May-2021**  
**Subject Code : KCS-401**  
**Max. Marks : 30**

COURSE OUTCOMES	
<b>C210.1</b>	<b>Explain main components, services, types and structure of Operating Systems.</b>
C210.2	Apply the various algorithms and techniques to handle the various concurrency control issues.
<b>C210.3</b>	<b>Compare and apply various CPU scheduling algorithms for process execution.</b>
C210.4	Identify occurrence of deadlock and describe ways to handle it.
C210.5	Explain and apply various memory, I/O and disk management techniques.

Q. No.	Questions	CO	BL
<b><u>PART- A: Attempt All Questions (5x1 = 5 Marks)</u></b>			
1.	List the advantages and disadvantages of batch operating system.	1	1
2.	Define Time Sharing System.	1	1
3.	Differentiate between various kinds of Schedulers.	3	2
4.	Differentiate between Throughput and Response time.	3	2
5.	State the differences between process and program.	3	1
<b><u>PART-B: Attempt ANY THREE Questions (3x5 = 15 Marks)</u></b>			
6.	Diagrammatically explain process state transition diagram?	3	2
7.	Explain the layered Structure of OS.	1	2
8.	Differentiate between ready queue, job queue and device queue.	3	2
9.	Explain the major functions and services of an operating system.	1	2
<b><u>PART-C: Attempt ANY ONE Question (1x10 = 10 Marks)</u></b>			
10.	Process    Arrival Time                      Burst Time                      Priority	3	3
	P1                      0                                      10                                      3		
	P2                      1                                      3                                      1		
	P3                      2                                      2                                      3		
	P4                      3                                      4                                      4		
	P5                      4                                      5                                      2		
	a) SRTF		
	b) RR (Time Slice=4 ms)	3	3
11.	Explain the following -	3	2
	a) Monolithic Kernel and Microkernel		
	b) Multiprogramming and Multiuser system	3	2