CSF

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PRN:		Course Code :	UCS302

Second Year **B. Tech CSE** End Semester Examination Winter 2023

Operating Systems

Day and Date: friday 01/12/2023 Max Marks: **100**

Time : 10.30am to 1.30 PM Duration: **03** hrs

Instructions: All questions are compulsory.

			Marks	Bloom's Level	CO
Q.1		**Attempt the following**			
	a)	Illustrate the difference between serial programming and multiprogramming	08	L2	CO1
	b)	Describe time sharing operating system in detail.	08	L1	CO1
		OR			
	b)	Explain concept of operating system in detail.	08	L2	CO1
Q.2		**Attempt the following**			
	a)	Draw and explain process state transition diagram in detail.	08	L1	CO2
	b)	Write a short note on PCB.	08	L2	CO2
		OR			
	b)	Explain round robin process scheduling in detail.	08	L1	CO2
Q.3		**Attempt any two from the following**			
	a)	Explain round SJF scheduling in detail.	08	L1	CO2
	b)	Explain concept of process scheduling in detail.	08	L1	CO3
	c)	Discuss on priority scheduling in detail.	08	L2	CO3
Q.4		**Attempt any two from the following**			
	a)	State and explain different types of semaphores in detail.	08	L1	CO3
	b)	Explain Critical Section problem in detail.	08	L2	CO3
	c)	Discuss spin lock and its solution in detail.	08	L1	CO3
Q.5		**Attempt any Two of the following**			
	a)	Discuss about deadlock concept in operating system in detail.	09	L1	CO3
	b)	Explain deadlock prevention in detail	09	L3	CO3
	c)	Explain use resource allocation graph in deadlock detection	09	L2	CO4
Q.6		**Attempt any Two of the following**			
	a)	Explain single partition memory allocation technique	09	L1	CO4
	b)	Discuss about demand paging in detail.	09	L2	CO4
	c)	Draw and explain steps in handling a page fault.	09	L2	CO4

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