PRN:		Course Code :	UCA101R

First Year **BCA** End Semester Examination Winter 2023

OPERATING SYSTEMS

Day and Date: Monday, 11/12/2023 Max Marks: **100**

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

Instructions: All questions are compulsory.

			Marks	Bloom's Level	CO
Q.1		**Attempt the following**			
	a)	What is operating system? Write various functions of operating system.	08	L1	C01
	b)	Illustrate time shared operating system with its advantages and disadvantages.	08	L2	C01
		OR			
	b)	Differentiate batch processing and multiprogramming operating system.	08	L4	C01
Q.2		**Attempt the following**			
	a)	Explain components activities of operating system.	08	L2	C02
	b)	Elaborate layered structure of operating system.	08	L3	C01
		OR			
	b)	Differentiate monolithic kernel and microkernel.	08	L4	C03
Q.3		**Attempt any two from the following**			
	a)	Elaborate various process states.	08	L2	C03
	b)	Discuss (A) Scheduler (B)Long term scheduler(C)Short term scheduler (D) Medium term scheduler with diagram.	08	L4	C01
	c)	Discuss scheduling queues and their role.	08	L4	C03
Q.4		**Attempt any two from the following**			
	a)	Distinguish between pre-emptive and nonpre-emptive scheduling.	08	L4	C03
	b)	Explain round robin(RR) scheduling algorithm	08	L2	C03
	c)	Explain First Come First serve (FCFS)scheduling algorithm.	08	L3	C03
Q.5		**Attempt any Two of the following**			
	a)	Distinguish between paging and segmentation.	09	L4	C04
	b)	What do you mean by memory partitioning? Write a note on fixed memory partitioning.	09	L1	C04
	c)	Explain free space management techniques.	09	L2	C04
Q.6		**Attempt any Two of the following**			
	a)	What are the different operations performed on file?	09	L1	C04
	b)	Write a note on directory structure.	09	L1	C04
	c)	Explain contiguous file allocation method and indexed file allocation method.	09	L2	C04

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