Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.VOC- SEMESTER–I EXAMINATION – SUMMER 2022
Subject Code:21110204   **Date:03-08-2022**
Subject Name:Operating System
Time:10:30 AM TO 12:30 PM   **Total Marks:50**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	What is Operating system? Explain any four types of operating system in detail.	**05**
	(b)	Define process. Explain process state model with diagram.	**05**
Q.2	**(a)**	Explain Inter process communication in detail.	**05**
	(b)	Explain Scheduling of processes with example using below algorithms. (a) Round Robin (b) SJF	**05**
		OR	
	(b)	Explain Scheduling of processes with example using below algorithms. (a) FCFS (b) Priority based Non-Preemptive	**05**
Q.3	**(a)**	Explain concept of Demand Paging in memory management	**05**
	(b)	Explain Difference between Internal and External Fragmentation with example	**05**
		OR	
Q.3	**(a)**	Explain concept of virtual memory with example.	**05**
	(b)	Consider page reference string 1, 3, 0, 3, 5, 6 with 3 page frames. Find number of page faults for FIFO page replacement algorithm	**05**
Q.4	**(a)**	What is Directory? Explain various Directory operations.	**05**
	(b)	Explain disk scheduling algorithms with example using (a) FCFS (b) SCAN	**05**
		OR	
Q.4	**(a)**	Explain different types of file allocation methods with diagram.	**05**
	(b)	Explain disk scheduling algorithms with example using (a) LOOK (b) CSCAN	**05**
Q.5	**(a)**	Explain any two mobile operating systems.	**05**
	(b)	Explain Antivirus as the utility software.	**05**
		OR	
Q.5	**(a)**	Explain features of Symbian OS in detail.	**05**
	(b)	Explain Disk Cleanup and Backup in detail.	**05**

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