Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BVOC- SEMESTER– VI EXAMINATION – SUMMER 2023

Subject Code:1160204   **Date:30-06-2023**
Subject Name:Introduction to Biometrics
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)**	Write a short note on biometric recognition.	**05**
	(b)	Explain various modes of operation in multimodal biometric system.	**05**
Q.2	**(a)**	What is biometric system? Draw and explain basic architecture of biometric system.	**05**
	(b)	Draw and explain the architecture for Unimodal biometric systems.	**05**
		OR	
	(b)	Explain various levels of fusion in detail.	**05**
Q.3	**(a)**	Explain accuracy estimation in biometric system.	**05**
	(b)	Explain various Biometric pattern recognition methods.	**05**
		OR	
Q.3	**(a)**	Differentiate positive and negative identification system.	**05**
	(b)	Explain any five applications of biometric system in brief.	**05**
Q.4	**(a)**	How to enhance the fingerprints? Compare with appropriate patterns.	**05**
	(b)	How to create biometric database? Explain with suitable example.	**05**
		OR	
Q.4	**(a)**	Discuss any three major applications of Fingerprint Identification System.	**05**
	(b)	Write a short note on security of biometric systems.	**05**
Q.5	**(a)**	Design a multi biometric for securing banking transactions.	**05**
	(b)	Explain covert acquisition in Biometric System.	**05**
		OR	
Q.5	**(a)**	If you have a school for blind students, then how you will design and implement one efficient biometric system.	**05**
	(b)	Explain data storage mechanism in Biometric System.	**05**

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