

Printed Pages – 3

Roll No. ....

**328845(28)**

**APR-MAY 2022**

**B. E. (Eighth Semester) Examination, 2020**

**(New Scheme)**

**(Electronics & Telecommunication Engg. Branch)**

**BIOMETRIC TECHNIQUES**

***Time Allowed : Three hours***

***Maximum Marks : 80***

***Minimum Pass Marks : 28***

***Note : Part (a) of each unit is compulsory carry 2 marks. Attempt any two parts from (b), (c) and (d) carry 7 marks.***

**Unit-I**

1. (a) What do you mean by Biometric System? 2
- (b) What are the different types of biometric systems? 7

[ 2 ]

- (c) What are the various performance measures of Biometrics? 7
- (d) What are the benefits of Biometrics. Write down the difference between Biometric Identification and Verification? 7

### Unit-II

2. (a) What do you mean by Image Segmentation? 2
- (b) Explain Contractive Transformation method for face recognition. 7
- (c) What are the various challenges and advantages of Face Biometrics. 7
- (d) With the help of the block diagram explain design of iris biometrics. 7

### Unit-III

3. (a) What is Key Point Localization? 2
- (b) Explain the various minutiae extraction techniques? 7
- (c) What is Sign Language. Explain about Indian Sign Language? 7

[ 3 ]

- (d) Explain SIFT Algorithm? 7

### Unit-IV

4. (a) Define Cryptography. 2
- (b) Explain Symmetric Key Encryption and Asymmetric Key Encryption? 7
- (c) Explain RSA algorithm? 7
- (d) What are the various privacy concern and issues related to biometrics. 7

### Unit-V

5. (a) Define Multi-Model Biometrics. 2
- (b) Explain the role of biometrics in enterprise and border security? 7
- (c) What is DNA? Explain how DNA recognition works. 7
- (d) Explain Biometric Standards in detail? 7