

328845(28)

B. E. (Eighth Semester) Examination, April-May 2021

(New Scheme)

(Electronics & Telecommunication Engg. Branch)

BIOMETRIC TECHNIQUES

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

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

Unit-I

1. (a) Define biometric traits or biometric modalities. 2
- (b) How Biometric Identification is different from Biometric Verification? Explain with suitable example. 7

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- (c) Write various applications and benefits of biometric. 7
- (d) Explain the working of basic architecture of Biometric System with proper block diagram. 7

Unit-II

- 2. (a) What do you mean by learning or training of a neural network? 2
- (b) Draw the flow diagram of Iris Recognition System and explain it. 7
- (c) What are the strengths and weaknesses of facial biometrics? How do we solve the challenges in face recognition systems? 7
- (d) Explain the IFS method of face recognition system. 7

Unit-III

- 3. (a) What do you mean by False minutiae? 2
- (b) Explain the working of Finger print recognition system with proper block diagram. 7

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- (c) Draw and explain various stages involved in ISL recognition system. 7
- (d) Discuss SIFT algorithm. Why is SIFT algorithm most widely used for feature extraction? 7

Unit-IV

- 4. (a) What do you mean by attack in cryptography? 2
- (b) What is Soft Biometrics? How does it help in the biometrics with hard biometrics modalities? 7
- (c) Compare various Biometric Techniques on basis of privacy issues associated with each one of them. 7
- (d) What are the various steps involved in RSA algorithm? Explain. Also compare it with DES algorithm. 7

Unit-V

- 5. (a) What is Biometrics API? 2
- (b) Explain DNA biometrics. Why DNA biometrics is mostly used in solving the criminal cases? 7

- (c) What are the different characteristics, advantages and challenges of multimodal biometrics? 7
- (d) Write short note on Biometric standards. 7