

## CT3 Question Bank for Biometrics Subject

### Part – A MCQs

Failures due to Non-working sensors, failure of feature extraction, matching, or decision making modules, etc. are called s \_\_\_\_

- a. Intrinsic Failure
- b. Failure due to attacks
- c. Software Failures
- d. Extrinsic Failures

The condition of the data being complete and unaltered refers to \_\_\_\_

- a. Confidentiality
- b. Integrity
- c. Non-repudiation
- d. Availability

\_\_ traits are also considered classic or traditional, such as faces, fingerprints or signatures

- a. Soft Biometric
- b. Hidden Biometric
- c. Hard Biometric
- d. Functional Biometric

It is a fact that a legitimate user denies using the system after having access to it?

- a. Intrusion
- b. Denial of Service
- c. Replay
- d. Repudiation

\_\_ is refers to the scenario where an authorized user willingly turns malicious one for the monetary gain

- a. Coercion
- b. Collusion
- c. Enrollment Fraud
- d. Exception Abuse

In access control, the three fundamental methods for verifying authorized access are

- a. Something you have, something you know and something you are
- b. Something you don't have, something you are and something you don't know
- c. Something you don't know, something you are and something you write
- d. Something you know, something you read and something you write

\_\_ Biometric App used in Airport to compare your passport to a photo capture of your face to verify you

- a. Automated Border Access Technology – eTech
- b. Automated Airport Control technology – eCtrl
- c. Automated User Control technology – ePass
- d. Automated Border Control technology - eGates

This is a typical method that is used to make sure that biometric sample that is submitted is from the end user:

- a. Open-set identification
- b. Live scan
- c. Extraction
- d. Liveness detection

The interaction between the end user and a biometric system causes the capture of a biometric sample. Such a process is known as:

- a. Identity
- b. Live scan
- c. Live capture
- d. Mimic

This term is used to refer the process of collecting a biometric sample from an individual through a sensor:

- a. Feature extraction
- b. Iris recognition
- c. Submission
- d. Live scan

Identity cards like Aadhar cards and national security is an application of?

- a. Iris recognition system
- b. Finger recognition system
- c. Voice recognition system
- d. Facial recognition system

Biometrics are automated methods of recognizing customers through their \_\_\_\_\_ and traits such as fingerprints, finger vein patterns, iris, and voice recognition.

- a. Performance
- b. Input
- c. Biological characteristics
- d. Threshold

\_\_\_\_\_ is combining of sensory data Feature values

- a. Sensor fusion
- b. Sensor
- c. Comparison
- d. Decision fusion

The \_\_\_\_\_ method is proposed to classify gender

- a. Object score alignment
- b. Operator score alignment
- c. Optimal score alignment
- d. Optimal score assignment

Out of the given options, which application comes under the access management area?

- a. Fraud identification
- b. Online banking
- c. Permission-based systems
- d. Investigation

A particular biometric system that is based on direct measurement of the parts of human body such as Iris, shape, fingerprint and position of fingers, etc..

- a. Biometric modalities
- b. Physiological modalities
- c. Facial modalities
- d. Behavioral modalities

Which of the following comes under the function of image blurring?

- a. Object detection
- b. Gross representation
- c. Object motion
- d. Segmentation

There is a method that is applied on digital image in order to alter the values of its individual pixels, which is known as:

- a. Image registration
- b. Neighbourhood operations
- c. Geometrical special transformation
- d. Single pixel operation

Among the given options, what can be correctly referred to as a proprietary finger scanning method:

- a. Extraction
- b. Recognition
- c. Auto-correction
- d. Bifurcation

Depending on the need of any biometric application, the threshold is \_\_\_\_\_ so that the biometric system can be more or less strict

- a. One-to-one
- b. Arch
- c. Adjustable
- d. Strict

\_\_\_\_ was the first country to issue Biometric passports in 1998

- a. Italy
- b. Australia
- c. Malaysia
- d. Singapore

It is the concept of combining information from different data sources, after each source has been Classified individually

- a. Sensor Fusion
- b. Decision Fusion
- c. Data Fusion
- d. Information Fusion

\_\_\_\_ has been defined as the mathematical interpretation of a human motion by a computing device

- a. Face recognition
- b. Iris Recognition
- c. Ear Recognition
- d. Gesture Recognition

The primary purpose of using biometrics is to provide -----non-repudiable authentication.

- a. Repudiable authentication
- b. Non-repudiable authentication
- c. Identification
- d. Recursive Process

Which is not comes under Physiological Biometric traits \_\_\_\_\_

- a. Face recognition
- b. Finger Print
- c. Iris
- d. Signature

Hidden biometrics are \_\_\_\_\_

- a. Subjective
- b. Appearance
- c. Intrinsic
- d. Degradation Process.

Intrusion affects the basic \_\_\_\_\_ of a biometric system.

- a. Integrity
- b. Segmentations
- c. Edge
- d. Model

\_\_\_\_\_ refers to the scenario where an authorized user willingly turns malicious and attacks the biometric system either individually or in collaboration with external adversaries

- a. Artificial intelligence
- b. Collusion
- c. Image Processing
- d. Data Mining

\_\_\_\_\_ is the main concern in immigration and naturalization service Unique Identification Authority

- a. Identification
- b. Authentication
- c. Attack
- d. Security

Which is not a primary reason for using Biometric recognition

- a. Apprehend criminals
- b. Curtail financial fraud
- c. Secure national borders
- d. Authorize government resources

Pick the odd one out among the following

- a. Keystroke dynamics
- b. Hand Geometry
- c. Touch Dynamics
- d. Gait

Which among the following were related Soft Biometrics

- a. Fingerprint
- b. Iris
- c. Signature
- d. Hair colour

The security of the system is not said to be breached, when \_\_\_\_\_ occurs

- a. Denial-of-service to legitimate users
- b. Intrusion by unauthorized users
- c. Repudiation claims by authorized users
- d. Use of Biometric data for an intended purpose

A security threat in a biometric system leads to \_\_\_\_\_

- a. System Resume
- b. System failure
- c. System restarts
- d. System shutdown

Which is not a biometric identifier among the following.

- a. Fingerprints
- b. Facial patterns
- c. Typing cadence
- d. Moles

Select among the following were the first biometric passport issued

- a. Singapore
- b. Japan

- c. Malaysia
- d. India

\_\_\_\_\_ is used for employee access control and passengers facing implementations

- a. Hand Scan Technology
- b. Facial sensor
- c. Fingerprint sensor
- d. Iris sensor

\_\_\_\_\_ is used for more effective Password Management in banking

- a. Internet Banking
- b. Mobile Banking
- c. Single Sign on
- d. Branch Banking

Historically iris capture is carried out at a distance of about

- a. 10 inches
- b. 20 inches
- c. 30 inches
- d. 40 inches

Biometric identification systems can also help governments to more equitably distribute welfare benefits to the \_\_\_\_\_:

- a. Organization
- b. Poor
- c. Public
- d. Country

## **PART B – 10 Mark Questions**

Summarize the features of Biometric Application used for National Border Security

Classify the different types of attacks performed on a Biometric System and Explain

Summarize the importance of Biometric Application used in Immigration and Naturalization of a country

Discuss how the Biometric Application advances the Industrial Automation processes with suitable example

Describe

- (i) Impersonation
- (ii) Obfuscation
- (iii) Spoofing

Enumerate different approaches for template production.

Explain Biometrics in Programmable Logic Controller

Describe Types of gesture interpretation

Explain in detail about Block diagram of AV biometrics system

What is meant by security threat in biometric system? Explain various security threats that are leading to the distortion in biometric system.

Discuss about how well Biometric Application can be used in Industry 4.0

Explain in detail about Biometric system authentication also differentiate identification and authentication.

Define the following

- a. Soft Biometrics
- b. Hard Biometrics
- c. Attacks on Biometric Systems
- d. Imposters
- e. Collusion

Differentiate software biometrics and hardware biometrics.

Analyse the Effects of Biometric Systems on Stock Market

Summarize the features of a Biometric Application used for recognizing the gestures of dumb and deaf people

How to you achieve Identity Authentication based on Audio Visual Biometric? Explain

Justify any 5 reasons to make biometrics a part of your multi-factor authentication strategy.

Enumerate and explain the criteria to evaluate the suitability of keystroke dynamics.

Elucidate the DNA recognition system with a neat diagram. Enlist pros and cons for the same.

With the help of a neat diagram rationalize the various methods of securing passwords?

Depict the Gesture Interpretation in Biometric system. Describe its types? Explain the algorithms used for Gesture interpretation.

What do you mean by Biometric System's Authentication? Discuss how will it affect the outcome of the system?

Explain the Principle Component Analysis (PCA) method with suitable example

Design a Signature Detection system using Biometrics with a neat sketch

Clarify the role of Biometrics in Stock Market. Give a detailed elucidation of effects of Biometric system in the stock market.

Biometric system can be classified into physiological traits and behavioral traits. Give a detailed description of each the physiological and behavioral traits.

Explain the pros and cons of implementing Biometric Application in Airport Screening Process