



RAN-2411000503033002

M.Sc.CA. (Sem. - III) Examination October - 2025 903-02-Android Based Sensors Handling

Time: 3 Hours]

[Total Marks: 70

સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) All questions are compulsory.
- (3) Figure to the right indicate full marks.
- (4) Mention your options clearly.

Seat No.:

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Student's Signature

Q.1. MCQ

10

1. Which method can be used to get the x-coordinate of a touch?
 - a) getX()
 - b) getY()
 - c) getAxisValue()
 - d) getLocation()
2. Which class in Android is primarily responsible for handling touch input events?
 - a) View
 - b) MotionEvent
 - c) InputEvent
 - d) KeyEvent
3. Gesture Overlay View is used mainly for:
 - a) Detecting multi-touch events
 - b) Capturing user-drawn gestures
 - c) Fingerprint authentication
 - d) Managing app permissions
4. Which method checks if a gesture matches a stored one?
 - a) recognize()
 - b) detect()
 - c) compare()
 - d) match()
5. Which is NOT a multi-window mode?
 - a) Split-screen
 - b) Picture-in-Picture
 - c) Freeform
 - d) Floating-panel
6. Picture-in-Picture is commonly used in:
 - a) Messaging apps
 - b) Video players
 - c) File managers
 - d) Music players.
7. Which class manages fingerprint authentication?
 - a) FingerprintHandler
 - b) FingerprintManager
 - c) BiometricManager
 - d) KeyguardManager
8. Which permission is required for fingerprint authentication?
 - a) USE_BIOMETRIC
 - b) AUTHENTICATE_USER
 - c) ACCESS_FINGERPRINT
 - d) USE_SENSOR

9. Which file stores cryptographic keys for app signing?
 - a) Manifest file
 - b) Keystore file
 - c) Gradle file
 - d) APK file
10. Which step comes last in the release process?
 - a) Enable ProGuard
 - b) Create Keystore
 - c) Generate signed APK
 - d) Upload APK to Play Console

Q.2. Answer the following in short (Any nine) 18

1. What is Google Play App Signing?
2. How does ProGuard help in releasing apps?
3. List the three types of multi-window modes supported by Android.
4. What is the purpose of the Gesture OverlayView class?
5. Name the method used to handle touch event in Android. Discuss any one in brief.
6. Differentiate between touch and multitouch input in android.
7. What is the role of the Fingerprint Authentication Handler class?
8. Which permission is needed to use fingerprint in Android?
9. What is the purpose of the Google Play Developer Console?
10. Discuss on TouchEvent() method.
11. What is Mutli window mode in android?
12. What is stored in the keystore file?

Q.3. Do as Directed (Any 2) 14

- A. How to handle multi touch in android? Explain various methods and events of multi touch handling.
- B. How to configure device for Fingerprint Authentication? How to add Fingerprint Icon and design user interface? Discuss with example.
- C. How to detect common Gestures in android? Discuss in detail.

Q.4. Write short notes (Any 2) 14

- A. Explain Touch Event lifecycle in detail. Also discuss various key methods used to process touch inputs.
- B. Discuss how to access Android Keystore and KeyGenerator. How to generate key?
- C. Discuss Android Multi-Window support in detail.

Q.5. Do as Directed (Any 2) 14

- A. Write a steps to create application APKfile in detail.
- B. How to build and run Gesture Bulder Application?
- C. How to Signing and Preparing and android application for release?