

RAN-1911000702030001
M.Sc. (I.C.T.) (Sem.-II) Examination April - 2026
Smart Device Computing using Android (Paper 203)
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) Do as directed. (3) Draw the figure wherever necessary.	Seat No.: Student's Signature
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- Q.1. Answer the following: 14**
- A. Explain Object-Oriented Programming concepts in Kotlin with suitable examples. 07
- OR**
- A. How are variables declared and initialized in Kotlin? Explain different data types with examples.
- B. Illustrate the use of loops in Kotlin with suitable examples. 05
- C. What is an ArrayList in Kotlin? 02
- Q.2. Answer the following: 14**
- A. Explain the use of Tabs and Fragments in Android and how they help in navigation between screens. 07
- OR**
- A. How layouts and UI controls work together to create an interactive Android application.
- B. Explain Auto Complete Text View and its role in improving user input experience. 05
- C. What is a Gradle build system in Android? 02
- Q.3. Answer the following: 14**
- A. Explain how multithreading is implemented in Android using AsyncTask with suitable example. 07
- OR**
- A. Describe the working of Content Providers and explain how they enable data sharing between applications.
- B. Explain external storage in Android with suitable example. 05
- C. What is internal storage in Android? 02
- Q.4. Answer the following: 14**
- A. Explain location navigation in Android and describe how location services are used in applications. 07
- OR**
- A. Describe Google Cloud Messaging and explain how notifications are handled in Android.
- B. Explain the concept of API integration in Android with suitable example. 05
- C. What is Reverse Geocoding? 02

- Q.5. Answer the following:** **14**
- A. Explain how testing and debugging are performed in Android applications. 07
- OR**
- A. Describe how Firebase is used for cloud storage in Android applications.
- B. Explain the concept of Coroutines in Android and how they improve performance. 05
- C. What is Push Notification in Android? 02
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