

B.SC(IT) SEMESTER - 6 (NEP-2020) Examination**March/April-2026****Mobile Programming Using Android (Kotlin) (Theory) (Major-14)****Time: 2:00 Hours****Marks:50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que.1 Answer following Questions (Any Two) (10)
- 1) Explain OHA, Android platform and Android SDK.
 - 2) Explain Application context, Activities, Services and Intents. Explain how to receive and broadcast Intents.
 - 3) Explain Activity life cycle and fragment.
 - 4) Explain Android Manifest file and its settings. Explain Intent filters and permissions.
- Que.2 Answer following Questions (Any Two) (10)
- 1) Explain with example: ListView, GridView, RadioGroup.
 - 2) Write short note on Layouts.
 - 3) Explain Material Design Guidelines and Modern UI/UX.
 - 4) Write short note on Tweened Animation.
- Que.3 Answer following Questions (Any Two) (10)
- 1) Explain CRUD operations using SQLite.
 - 2) What is LBS? How to access location using GPS and Network Providers?
 - 3) Explain how to integrate Google Map with Android application? Explain how to use Map Marker and how to customize map?
 - 4) Explain Geo-fencing and Proximity Alerts. Explain Background Location updates and foreground services.
- Que.4 Answer following Questions (Any Two) (10)
- 1) Explain how to work with RESTful APIs and JSON.
 - 2) Explain Application development using JSON and MySQL.
 - 3) How to do Testing in Android? Explain Unit Testing and Instrumentation Testing in Android with example.
 - 4) Explain Version Control with Git and GitHub for Android Project. Write steps to publish Android Applications on Play Store.
- Que.5 Answer following Questions (Any Two) (10)
- 1) Explain how to use different types of Resources? Explain how to manage Resources in a Hierarchy.
 - 2) Write short note on Dialogs.
 - 3) Explain how to integrate firebase with Android application.
 - 4) Explain how to create and customize notifications?
