

Dezyne École College

Bachelor of Computer Application (B.C.A.) Second Year-4th Semester

Android Programming

Part-A (2 Marks Each, Short Answer Questions – 10 Questions)

(Answer in ~50 words)

- 1. Define a mobile application.
- 2. What is the difference between native and hybrid apps?
- 3. List any two front-end components in Android.
- 4. Mention two back-end services in mobile app development.
- 5. What is Android Studio?
- 6. What is an Intent in Android?
- 7. List the lifecycle methods of an Android activity.
- 8. Define a Fragment.
- 9. What is a Toast in Android?
- 10. Mention any two basic UI views in Android.
- 11. What is SharedPreferences used for?
- 12. How do you load a URL in a WebView?
- 13. Define the purpose of a Content Provider.
- 14. What is the use of the Action Bar?
- 15. Write any two differences between ListView and RecyclerView.
- 16. What is the use of the Manifest file?
- 17. Define Logcat.
- 18. What is an APK file?
- 19. What are pickers in Android?
- 20. Mention any two functions of the Android Emulator.

Part-B (10 Marks Each, Attempt Any 5, Minimum One from Each Unit)

(Answer in ~400 words)

Unit I: Mobile App Basics, IDE, and Publishing

- 1. Explain the mobile app development lifecycle with a neat diagram.
- 2. Compare native, hybrid, and web apps. Give their advantages and disadvantages.
- 3. Describe the architecture of an Android application. What are its major components?
- 4. Discuss the steps to build, run, debug, and publish your first Android app using Android Studio.
- 5. What are the key differences in Android versions from Lollipop to Android 12?

Unit II: Activities, Intents, UI Components, Orientation

- 6. Explain the Android Activity lifecycle with a suitable diagram.
- 7. Differentiate between explicit and implicit intents with code examples.
- 8. What are Fragments in Android? Describe their lifecycle and advantages.
- 9. How do you adapt the user interface for different screen orientations in Android?
- 10. What is the Action Bar? How is it customized and used in Android applications?

Unit III: Views, Storage, Content Providers, and Location

- 11. Explain the use of basic views (TextView, EditText, Button, ImageView) with example layout code.
- 12. What are ListViews and how are they used to display long lists of data? Explain with code.
- 13. Write short notes on: (a) Picker Views (b) Menus (c) WebView
- 14. Discuss different ways of saving and loading data in Android: SharedPreferences, Files, and SQLite.
- 15. What is a Content Provider? How do you create and use one in Android?

Unit IV: Messaging, Location, and Services

- 16. Explain the steps to send an SMS and an Email from your Android app.
- 17. Describe how to use Google Maps in Android. How do you display a user's current location?
- 18. What are the permissions required to access location and messages? How are they implemented in the Manifest?
- 19. Explain how to monitor location changes in Android. What are the key classes involved?
- 20. Describe the difference between synchronous and asynchronous tasks in Android with respect to