1. a) Define Activities and Intents and explain Activity Life cycle.

b) Build and Run Hello World Application on the virtual Device and also test the app on your mobile phone.

1. a) Explain Text Controls, Buttons, Widgets, Layouts, Containers in Android.

b) Explore all the UI Controls and design a Student Registration Activity

1. a) Explain Back-button navigation, Hierarchical navigation patterns, Ancestral navigation (Up button), Descendant navigation, Lateral navigation with tabs and swipes.

b) Design a complete Student Management Application using Android and provide effective navigation between various Activities.

1. a) Write the Security practices for network operations, and how can perform Network Operations on a worker thread, and explain how the HTTP connection is established to the App.

b) Develop an Android Application that stores Student Details into the hosting server and retrieve student details from the server.

1. a) What is the difference between Hybrid App vs Native App and explain about React-Native, Flutter, Ionic.

b) Design Student Management App using any one of the Hybrid Frameworks or SDKs.

1. a) Explain about Android OS Architecture and write Features, Functionalities of of any two mobile Apps in your Mobile.

b) Install Android Studio and Configure Latest Android SDKs and Android Virtual Devices

1. a) Write about SDK Manager, Configure Plugins, Android Virtual Device (AVD) Emulators.

b) Prepare and Publish Your Android Apps in Google Play Store.