

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VII (NEW) EXAMINATION – WINTER 2024****Subject Code:3170726****Date:11-12-2024****Subject Name: Mobile Application Development****Time:10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

Q.1 (a) What is the purpose of a DFD in software engineering? **03**
 (b) Explain the significance of Software Development Life Cycle. **04**
 (c) Explain android architecture in detail with figure. **07**

Q.2 (a) How does Android architecture differ from other mobile operating systems? **03**
 (b) Explain the lifecycle differences between an Android activity and a fragment. **04**
 (c) Implement a custom layout for displaying user profiles in an Android application. **07**

OR

(c) What is Activity? Draw and explain Activity lifecycle in detail. **07**

Q.3 (a) Explain basic building blocks/components of Android Application. **03**
 (b) Define Recycler View, Content Provider and Card View. **04**
 (c) Develop a menu system for a restaurant application using Android menus. **07**

OR

Q.3 (a) What is an Intent? Explain types of Intent. **03**
 (b) Explain Access web data with JSON. **04**
 (c) Write code to display Toast Message on click of close Button. **07**

Q.4 (a) Describe the task of Notification Manager in Android. **03**
 (b) Explain Material design. **04**
 (c) Define services in Android operating system. Explain service Lifecycle with neat diagram. **07**

OR

Q.4 (a) Explain the difference between bitmap and vector graphics in Android development **03**
 (b) What is Geocoding and Reverse Geocoding? Explain it with Example. **04**
 (c) Describe the process of performing CRUD operations on Firebase Realtime Database in an Android application. **07**

Q.5 (a) List sensors in Android and explain any one in detail. **03**
 (b) Briefly explain AsyncTask loader. **04**
 (c) Write a code to get current location & display it in text view. **07**

OR

Q.5 (a) Describe the difference between Frame Animation and Tween Animation in Android. **03**
 (b) Write steps to publishing android applications on play store. **04**
 (c) How does text-to-speech functionality enhance user accessibility in Android applications, and what are the key considerations when implementing this feature? **07**
