

Enrolment No. /Seat No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA INTEGRATED – SEMESTER VII- EXAMINATION –SUMMER-2025

Subject Code: 4470611

Date: 03/06/2025

Subject Name: Mobile Programming

Time:02:30 PM TO 05:00 PM

Total Marks: 70

Instructions:

- 1. Attempt all questions.**
- 2. Make Suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Use of simple calculators and non-programmable scientific calculators are permitted.**

Q.1 (a) Answer the following questions. 07

1. What are two key features of the Android SDK that support mobile app development?
2. Explain the difference between developing for mobile devices and embedded devices in Android.
3. Name two Android development tools.
4. What is the purpose of the Android Manifest file in an Android application?
5. Describe the role of externalizing resources in Android development.
6. Explain the Android application lifecycle and mention one key lifecycle method.
7. What is an Android activity?

(b) Describe the architecture of Android. 07

Q.2 (a) Explain the different types of layouts and provide examples of their use in applications. 07

(b) What is an Adapter? how does it facilitate the creation of custom views? Illustrate it with an example. 07

OR

(b) What is the role of Intents in Android? Differentiate between explicit and implicit intents. 07

Q.3 (a) What is shared preference? discuss the use of static files as resources and the process of working with the file system. 07

(b) Describe the process of working with SQLite databases and creating content providers. 07

OR

Q.3 (a) Define content providers in Android and define their purpose also explain advantages of using them. 07

(b) Discuss the use of background threads and alarms for scheduling tasks. 07

Q.4 (a) What is a Fragment? List the types of fragments and explain the fragment lifecycle in detail. 07

(b) Explain the use of location-based services. How do you select a location provider and find the current location? 07

OR

- Q.4** (a) Discuss the addition of action bars, menus, dialogs, drawables, gradients, and custom animations. **07**
(b) What is animation in Android? List the different types of animations available and explain tween animation in detail. **07**

- Q.5** (a) How can you play audio and video in an Android application? Discuss manipulating raw audio capturing images with the camera? **07**
(b) What is the difference between the View and ViewGroup classes in Android? List different built-in layouts and explain one in detail. **07**

OR

- Q.5** (a) What steps are required to publish an application and ensure successful deployment? **07**
(b) Explain the Android software stack in detail, including its components and their roles. **07**
