

Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VII EXAMINATION – WINTER 2025

Subject Code:3170726

Date:28-11-2025

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) Explain CardView in Android with appropriate example.	03
	(b) List and explain any two ADB (Android Debug Bridge) commands, providing their functionality and use cases.	04
	(c) Describe steps to publish your Android Application on Google Play Store.	07
Q.2	(a) Explain any three UI Components available in Android OS with their use.	03
	(b) Write a Java code snippet that requests permission to initiate a phone call from within the application. Display an appropriate Toast message to inform the user if the permission is granted or denied. Use Manifest.permission. CALL_PHONE as the permission string. (Only write necessary Java code.)	04
	(c) Provide a comprehensive explanation of the Android architecture, detailing its various components and layers.	07
	OR	
	(c) Enlist and explain various callback methods of Fragment life cycle.	07
Q.3	(a) What is SharedPreferences in Android, and when would you use it?	03
	(b) Explain the role of the SQLiteOpenHelper class in Android.	04
	(c) Write a code that lists all video files located in a folder named 'Data' within the user's SD card directory and displays the list in the logcat, assuming user has already granted necessary permissions for this task. (Only write necessary Java code.)	07
	OR	
Q.3	(a) Discuss various data storage options available in Android for persistent data storage.	03
	(b) Explain the purpose of the following methods in AsyncTask: onPreExecute(), doInBackground(), onPostExecute(), and publishProgress().	04
	(c) Explain use and working of Retrofit library with an example.	07
Q.4	(a) Explain the use of Gyroscope sensor in Android with appropriate example.	03
	(b) Write a note on Notification Services in Android.	04
	(c) Create a Broadcast Receiver that responds to the device's battery level changes and displays the current battery level in a Toast message whenever there is a change in the battery level. (Only write necessary java code.)	07
	OR	
Q.4	(a) Explain Frame Animation and Tween Animation in Android.	03
	(b) Write a note on Android Text-to-Speech feature.	04

- (c) Write a Java code snippet that enables the user to select a song from their device and play it using a Service. Assume that the user has already granted the necessary permissions for this task. (Only write necessary java code.) **07**
- Q.5** (a) Write a note on importance of RecyclerView in Android. **03**
(b) Explain the steps to create a Context Menu in an Android Activity. **04**
(c) Explain the purpose and characteristics of ConstraintLayout, LinearLayout, and FrameLayout in Android. **07**
- OR**
- Q.5** (a) Write a note on FrameLayout in Android. **03**
(b) Explain the steps to create an Option Menu in an Android Activity. **04**
(c) Write a code snippet that allows the user to input a phone number and, upon clicking a button, opens the phone dialer with the entered number pre-filled using an Implicit Intent. Only write the necessary Java code for this task. **07**
