

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**B.Tech / Int. B.Tech Summer 2024 - 25 Examination**

**Semester: 6 / 10****Subject Code: 203105359****Subject Name: Mobile Application Development****Date: 23-04-2025****Time: 2:00pm to 4:30pm****Total Marks: 60****Instructions:**

1. This question paper comprises of two sections. Write answer of both the sections in separate answer books.
2. From Section A, **Q.1 is compulsory**, From Section B, **Q.1 is compulsory**.
3. Figures to the right indicate full marks.
4. Draw neat and clean drawings & Make suitable assumptions wherever necessary.
5. Start new question on new page.
6. BT- Blooms Taxonomy Levels – Remember-1, Understand -2, Apply-3, Analyse-4, Evaluate-5, Create-6

SECTION-A		Marks	CO	BT
<b>Q.1</b>	<b>Answer the following questions.</b>			
	<b>A.</b> 1. What is the role of the AndroidManifest.xml file in an Android application? 2. Differentiate between Activity and Service components in Android. 3. Explain the purpose of Constraint Layout in Android UI design.	[06]	CO1	2
	<b>B.</b> 1. What is the use of SharedPreferences in Android? 2. What is AsyncTask, and why is it used in Android development? 3. List any two methods to monetize an Android application.	[06]	CO3	3
<b>Q.2</b>	<b>A.</b> Explain the architecture of the Android Operating System with a neat diagram.	[04]	CO1	2
	<b>B.</b> Discuss various Android UI Layouts and their use cases. Include at least three layouts in your answer.	[05]	CO2	3
	<b>OR</b>			
	<b>B.</b> What are Intents in Android? Explain explicit and implicit intents with suitable examples.	[05]	CO1	4
<b>Q.3</b>	<b>A.</b> Write a short note on Dalvik Virtual Machine and its role in Android.	[04]	CO1	2
	<b>B.</b> Explain how to sign, version, and publish an Android app on the Google Play Store.	[05]	CO5	3
	<b>OR</b>			
	<b>B.</b> How can you implement localization in an Android application? Give a step-by-step explanation.	[05]	CO2	3

SECTION-B		Marks	CO	BT
<b>Q.1</b>	<b>Answer the following questions.</b>			
	<b>A.</b> 1. Name two types of data storage techniques available in Android 2. What is the role of a RecyclerView in Android UI? 3. List any two responsibilities of the Android Manifest file	<b>[06]</b>		
	<b>B.</b> 1. What is the use of AVD (Android Virtual Device)? 2. Mention any two features of the Android operating system 3. Define a Broadcast Receiver in Android.	<b>[06]</b>		
<b>Q.2</b>	<b>A.</b> What are Fragments in Android? Explain their lifecycle briefly.	<b>[04]</b>	<b>CO1</b>	<b>2</b>
	<b>B.</b> Describe the steps and necessary code to parse JSON data from a web API and display it in a ListView or RecyclerView.	<b>[05]</b>	<b>CO4</b>	<b>3</b>
	<b>OR</b>			
	<b>B.</b> Discuss the use of Third-Party Libraries (e.g., Retrofit, Glide) in Android development. How do they simplify network and UI operations?	<b>[05]</b>	<b>CO4</b>	<b>4</b>
<b>Q.3</b>	<b>A.</b> Describe the steps to create and use a RecyclerView in Android.	<b>[04]</b>	<b>CO2</b>	<b>3</b>
	<b>B.</b> What is a Broadcast Receiver? Explain how to register and implement one in an Android application.	<b>[05]</b>	<b>CO1</b>	<b>3</b>
	<b>OR</b>			
	<b>B.</b> Describe the concept of Material Design. How does it enhance the user experience in Android apps?	<b>[05]</b>	<b>CO2</b>	<b>2</b>