

USN

Course Code

**22AI62**

Sixth Semester B.E. Degree Examinations, June/July 2025

## ANDROID MOBILE APPLICATION DEVELOPMENT

(Artificial Intelligent & Machine Learning)

Duration: 3 hrs

Max. Marks: 100

**Note:** 1. Answer any FIVE full questions choosing ONE full Question from each Module.  
2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBT:CO: PI)</u>
<b><u>Module-1</u></b>			
1.	a. Describe the architecture of Android.	06	(1 :1: 1.2.1)
	b. Explain the features of Android.	06	(1 :1: 1.2.1)
	c. Describe various Android layout types (Frame Layout, Linear Layout, Table Layout, and Relative Layout) with examples.	08	(2 :2: 2.3.1)
<b>(OR)</b>			
2.	a. Discuss the role of views and view Group in Android UI design.	06	(2:2:2.2.1)
	b. Compare Linear Layout and Relative Layout with diagrams.	06	(2:2:2.2.1)
	c. Develop a login interface as shown in Fig. Q 2(c) using Text View, Edit Text, Check box and Button in XML.	08	(3:2:2.3.2)

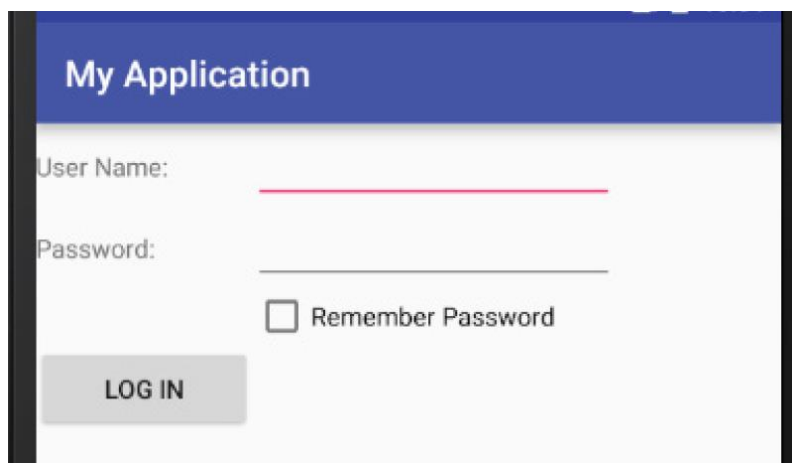


Fig. Q 2(c)

<b><u>Module-2</u></b>			
3.	a. Describe Android activity lifecycle with a neat diagram.	06	(1:2:2.1.1)
	b. Compare Activity vs Fragment with examples.	06	(2:2:2.2.1)
	c. Discuss the concept of linking activities in Android using Intents with relevant code snippets.	08	(3:2:2.3.2)
<b>(OR)</b>			
4.	a. Explain the basics of working with fragments with clear steps and appropriate code snippets.	10	(3:3:3.2.1)

- b. Write a code snippet to create, insert and retrieve student details using SQLite. **10** **(3:3:3.3.1)**

### **Module-3**

5. a. Describe the process of sending SMS messages programmatically in an Android application. **10** **(3:3:3.4.1)**
- b. How can you send an email using an Intent in Android? **10** **(3:3:3.4.2)**

**(OR)**

6. a. Describe how to display a map and add zoom controls in Android. **10** **(3:3:4.1.1)**
- b. Write code to display a map and get touch location details. **10** **(3:3:4.1.2)**

### **Module-4**

7. a. What is Kotlin? Explain the key features of Kotlin. **06** **(1:4:1.1.1)**
- b. Write “Hello World” program. Compare “val” and “var” keywords. **06** **(1:4:1.2.1)**
- c. Discuss the types of loops supported in Kotlin. **08** **(2:4:2.1.1)**

**(OR)**

8. a. Explain default and named arguments with examples. **10** **(3:4:2.2.1)**
- b. Explain vararg parameter and infix functions with examples. **10** **(3:4:2.2.2)**

### **Module-5**

9. a. Discuss classes and objects in Kotlin with example. **06** **(1:5:1.1.1)**
- b. Describe interface, inheritance with example. **06** **(2:5:2.1.1)**
- c. Write code to implement multiple interfaces in a Kotlin class. **08** **(2:5:2.1.1)**

**(OR)**

10. a. What is a sealed class? How is it different from abstract class? **06** **(2:5:2.3.2)**
- b. Explain Auto-generated functions: equals(), hashCode(), and copy(). **06** **(2:5:2.3.2)**
- c. Write a Kotlin program using a sealed class for shape handling (Circle, Rectangle). **08** **(3:5:3.1.1)**

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