VIT-AP UNIVERSITY | **Continuous Assessment Test - 1 | Fall Semester (2025-26) - August 2025**
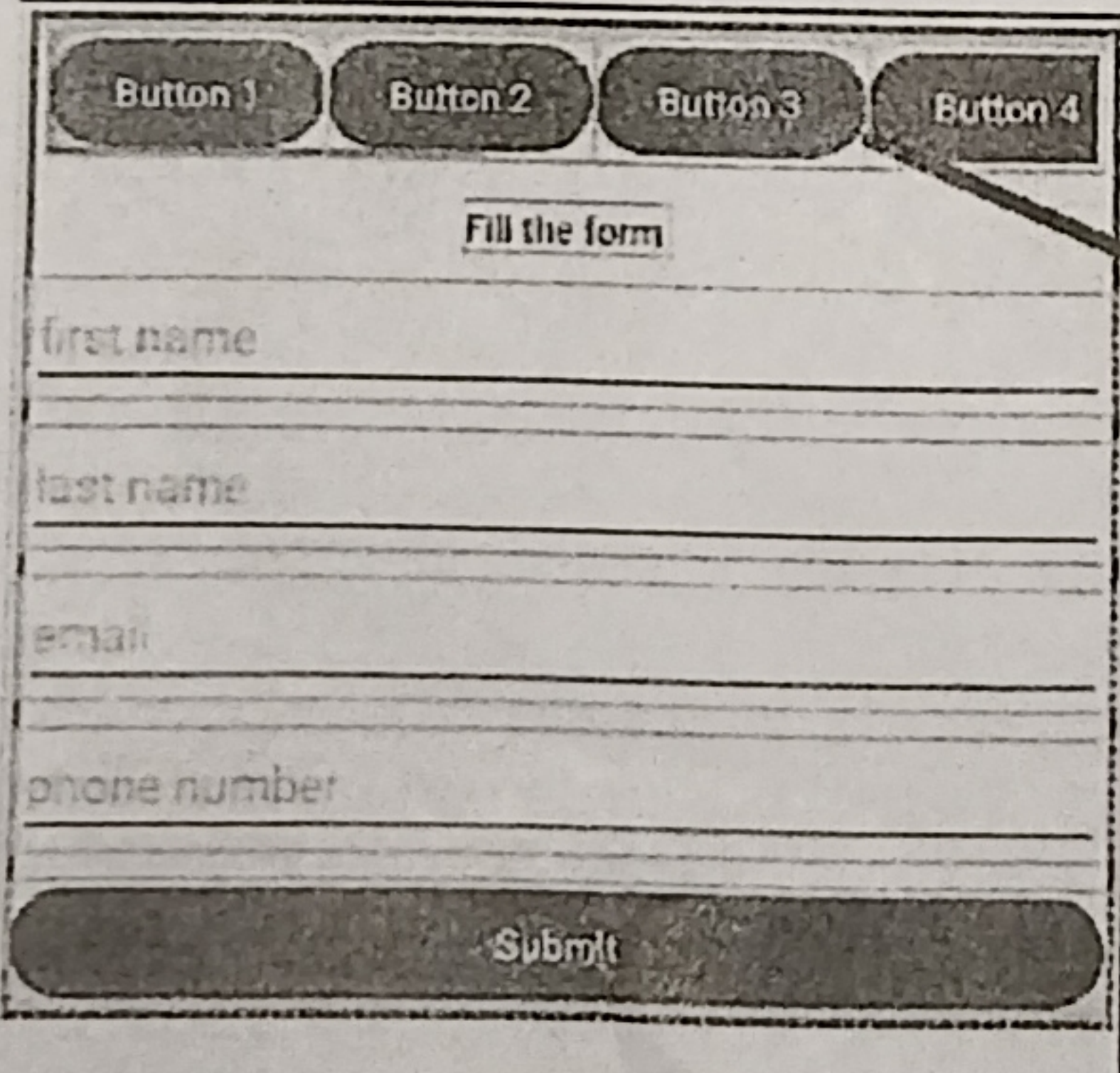
	Maximum Marks: 50	Duration: 90 Minutes
Course Code: SWE4003	Course Title: Concepts of Mobile Application Development	
Set No: 5	Exam Type : Open Notebook	School: SCOPE
Date: 20/08/25	Slot: C1	Session: FN

Keeping mobile phone/smart watch, even in 'off' position is treated as exam malpractice

General Instructions if any
1. "*fx* series" - non Programmable calculator are permitted : NO
2. Reference tables permitted : NO

Answer <u>ALL</u> Questions, Each Question Carries 10 Marks (5×10=50 Marks)

1. Draw and explain android architecture in detail. Explain any four UI Components of Android application.
   (10 M)

2. Explain the concept of **API levels** in Android and their importance in application development and compatibility. Take the example of **Snapchat** and describe how its development team decides the minimum API level to support, ensuring that new features like AR lenses work on most devices without breaking older functionality. Discuss the challenges faced when certain features require higher API levels and how backward compatibility is managed.
   (10 M)

3. Develop a java program to perform addition, subtraction, division, multiplication of two numbers and display the result. (Use appropriate UI controls).
   (10 M)

4. Write the **java code** for the MainActivity for the student course registration with the following requirements:
   (10 M)
   Create EditText fields for: Student Name, Course Code, and CAPTCHA input
   Display CAPTCHA code as "VIT" in a TextView
   Implement two buttons:
   "Verify & Register": Validates CAPTCHA and shows "Registration Successful" or "Invalid CAPTCHA - Try Again"
   "Get Registration ID": Toast the generated registration ID (Student Name + Course Code).

5. Write the XML code for the given below form.
   (10 M)