**BCA / BCA - HR**

**Batch - 2022-25 Semester - V**

**Course Code - Course Name - Mobile Programming**

**Date:**   **Maximum Marks: 60**

**Day:  Time:**

**SET II**

**Instructions: 1. Attempt all the questions.**

**2. All questions carry equal marks.**

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Q. 1 Describe the various stages of the Android Mobile Application Development Lifecycle, explaining each stage's key activities and deliverables. [10 Marks][CO 1]

Q. 2 Discuss the features of any five versions of the Android operating system. [10 Marks][CO 2]

Q.3 Explain the Android Activity lifecycle in detail. Describe each stage of the Activity lifecycle, the transitions between these states, and how developers can manage these states to ensure a smooth user experience and efficient resource use (Any 5) [8 Marks][CO 3]

Q.4 Define a layout in the context of user interface design. Describe the different layouts commonly used in mobile app development (Any 4). [8 Marks][CO 4]

Q.5 What is the GestureDetector class in Android? Explain the different types of gestures that can be detected using this class. [8 Marks] [CO 5]

Q.6 Analyze the benefits and drawbacks of cross-platform mobile development frameworks, with a particular focus on comparing leading options such as Flutter, React Native, and Xamarin. Assess each framework based on performance, developer experience, and community support. Provide a detailed comparison that outlines their strengths and limitations in these aspects, discussing how they perform on different platforms, the ease of development, and the strength of their developer communities. [8 Marks] [CO 6]

Q.7 Explain in detail Android Architecture with a diagram. [8 Marks] [CO 7]

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