

## BCA-5-03P-EC-B3: Introduction to Android Lab

Total Marks: 50  
External Marks: 35  
Internal Marks: 15  
Credits: 2  
Pass Percentage: 40%

<b>Course: Introduction to Android Lab</b>	
<b>Course Code: DMAD-1-03P</b>	
<b>Course Outcomes (COs)</b> After the completion of this course, the students will be able to:	
CO1	Attain proficiency in Android app development by gaining hands-on experience in designing, coding, and debugging basic Android applications using the Android Studio IDE.
CO2	Develop expertise in designing visually appealing and user-friendly Android user interfaces (UI), applying Android's design principles, layouts, and widgets effectively.
CO3	Learn to integrate and utilize various device features such as camera, sensors, and location services in Android applications, demonstrating the ability to create feature-rich and interactive mobile apps.
CO4	Acquire strong debugging and troubleshooting skills in the Android development environment, including the use of debugging tools and techniques to identify and fix common issues in Android applications.
CO5	Understand the process of deploying Android applications on physical devices or emulators, and gain proficiency in testing and validating the functionality of Android apps on different devices and screen sizes.

### Detailed List of Programs:

Programme No.	Name of Program
P1	Create a simple Android app that displays "Hello, World!" on the screen.
P2	Develop a calculator app that performs basic arithmetic operations like addition, subtraction, multiplication, and division.
P3	Design an app that calculates and displays the tip amount based on the entered bill and tip percentage.
P4	Build an app that converts temperatures between Celsius and Fahrenheit.
P5	Create a simple to-do list app that allows users to add, edit, and delete tasks.
P6	Develop an app that displays a list of images and allows users to view them in a larger format.

P7	Create a flashlight app that turns the device's flashlight on and off.
P8	Design an app that simulates rolling a six-sided die.
P9	Build a Body Mass Index (BMI) calculator app that takes height and weight inputs and calculates the BMI.
P10	Develop a quiz app with multiple-choice questions and provides feedback on the user's answers.
P11	Create an app that converts currencies based on the latest exchange rates.
P12	Build an app that displays a list of contacts and allows users to view details and make calls.
P13	Develop a basic music player app that allows users to play, pause, and skip tracks.
P14	Implement an app that tracks and displays the user's current location using GPS.
P15	Create an app that allows users to take pictures using the device's camera.
P16	Design a simple chat application that allows communication between two devices via Bluetooth.
P17	Build an alarm clock app that allows users to set alarms and receive notifications.
P18	Implement an app that logs data from device sensors, such as accelerometer or gyroscope.
P19	Create an app that recognizes and responds to different touch gestures, such as swipe or pinch.
P20	Build an app that fetches and displays weather information based on the user's location.