

**CERTIFICATE IN MOBILE
APPLICATION DEVELOPMENT
(CMAD)**

Term-End Examination

December, 2023

BCS-093 : INTRODUCTION TO ANDROID

Time : 3 Hours

Maximum Marks : 75

Note : *Question No. 1 is compulsory. Answer any
three questions from the rest.*

1. (a) Explain any *five* features of the Android operating system. 10
- (b) What is an activity in the context of Android ? Explain activity life cycle with the help of a diagram. 10
- (c) What is the use of internal storage in Android application ? List the steps to create and write a private file to the internal storage. 10

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2. (a) Explain any *five* common GUI controls used for an Android application. 5
- (b) Briefly discuss the following Android development tools : 10
- (i) Virtual device tools
 - (ii) Development tools
 - (iii) Debugging tools
 - (iv) Build tools
3. (a) What are the different categories of sensors supported by Android platform ? Explain any *four* commonly used sensors in Android. 10
- (b) What is Network Service Discovery (NSD) ? Explain. 5
4. (a) Describe the uses of SQLite database in Android application. 5
- (b) What are the different types of mobile applications ? Explain the features of any *two* types of mobile applications. 10
5. Write short notes on the following : 5×3=15
- (a) Push notification
 - (b) Publishing Android applications
 - (c) Foreground process and service process