

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

Term-End Examination

December, 2022

BCS-093 : INTRODUCTION TO ANDROID

Time : 3 Hours

Maximum Marks : 75

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

1. (a) Explain any **five** features of Android. 10
- (b) Explain the following : 5+5
 - (i) Hardware Abstraction Layer
 - (ii) Native Libraries
- (c) Explain any **five** call back methods of activity lifecycle. 10
2. (a) List and explain any **five** debugging tools for Android Apps. 10

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- (b) List the names of any *five* Android platform versions. 5
3. (a) Explain the following components of a Mobile App : 5+5
- (i) Content Providers
 - (ii) Broadcast Receivers
- (b) List any *five* functions of an AndroidManifest.xml file. 5
4. (a) List various steps in building and running on Android Mobile App. 10
- (b) What is meant by “Android Compatible” ? 5
5. (a) Write a short note on “Android Monitor.” 10
- (b) What are the techniques that can be applied while designing and implementing an Android App to make it memory efficient ? 5