

**MOBILE APPLICATION DEVELOPMENT AND IMPLEMENTATION
(MCAP 2202)**

Time Allotted : 3 hrs

Full Marks : 70

Figures out of the right margin indicate full marks.

*Candidates are required to answer Group A and
any 5 (five) from Group B to E, taking at least one from each group.*

Candidates are required to give answer in their own words as far as practicable.

**Group – A
(Multiple Choice Type Questions)**

1. Choose the correct alternative for the following: **10 × 1 = 10**

- (i) Which Broadcast in Android Includes Information about Battery State Level
 - (a) Android.intent.action.BATTERY_CHANGED
 - (b) Android.intent.action.BATTERY_LOW
 - (c) Android.intent.action.BATTERY_OKAY
 - (d) Android.intent.action.CALL_BUTTON.
- (ii) What Is JNI In Android?
 - (a) Java Interface
 - (b) Java Native Interface
 - (c) Java Network Interface
 - (d) Image Editable Tool.
- (iii) How to pass the data between activities in Android?
 - (a) Intent
 - (b) Content Provider
 - (c) Broadcast Receiver
 - (d) None of Above.
- (iv) In which directory XML layout files are stored
 - (a) /assets
 - (b) /src
 - (c) /res/values
 - (d) /res/layout
- (v) What is Manifest.xml in android?
 - (a) It has information about layout in an application
 - (b) It has all the information about an application
 - (c) It has the information about activities in an application
 - (d) None of the above.
- (vi) What is an interface in android?
 - (a) Interface is a class
 - (b) Interface acts as a bridge between class and the outside world.
 - (c) Interface is a layout file
 - (d) All of the above.

- (vii) Which of the following virtual machine is used by the Android operating system?
(a) JVM (b) Dalvik virtual machine
(c) Simple virtual machine (d) None of the above.
- (viii) How can we stop the services in android?
(a) By using the stopSelf() and stopService() method
(b) By using the finish() method
(c) By using system.exit() method
(d) None of the above.
- (ix) What Does AAPT Stands For?
(a) Android Asset Processing Tool (b) Android Asset Providing Tool
(c) Android Asset Packaging Tool (d) Android Asset Packaging Technique.
- (x) Which of the following is contained in the src folder?
(a) XML (b) Java source code
(c) Manifest (d) None of the above.

Group- B

2. (a) Discuss the role of android manifest file in android application development. [(C01)(Understand/LOCQ)]
(b) Discuss the dimension of mobile computing briefly. [(C01)(Understand/LOCQ)]
(c) What are the limitations of mobile computing? [(C01)(Analyze/IOCQ)]
4 + 6 + 2 = 12
3. (a) What are the purposes of view object? Explain. [(C02)(Understand/LOCQ)]
(b) Discuss the three aspects about the android event management. [(C02)(Understand/LOCQ)]
(c) How to highlight or display a flashing cursor when it is in focus? [(C02)(Understand/LOCQ)]
4 + 4 + 4 = 12

Group - C

4. (a) Evaluate content provider and content resolver as content handlers. [(C03)(Evaluate/HOCQ)]
(b) Explain the content provider architecture with a diagram. [(C03)(Understand/LOCQ)]
(c) Define the broadcast services. [(C03)(Remember/LOCQ)]
4 + 6 + 2 = 12
5. (a) What are the data storage options? Define briefly any four data storage options. [(C04)(Understand/LOCQ)]

- (b) Examine how SQLite is different than other database approach in Android.

[(CO4)(Analyse/IOCQ)]

(2 + 4) + 6 = 12

Group - D

6. (a) What is notification? How to create and set notifications. Explain with an example. [(CO5)(Apply/IOCQ)]
 (b) Distinguish between elapsed real-time alarms and real-time clock alarms. [(CO5)(Analyze/IOCQ)]
 (c) Define telephony. [(CO5)(Remember/LOCQ)]
 6 + 4 + 2 = 12
7. (a) How to check network connectivity in android phone and which method is called for connectivity? [(CO5)(Analyze/IOCQ)]
 (b) What does ADB stand for? How does it work? [(CO5)(Understand/LOCQ)]
 (c) Judge the utility of ANR. [(CO5)(Evaluate/HOCQ)]
 4 + 6 + 2 = 12

Group - E

8. (a) Can you list and explain the four Java classes related to sensors on the Android platform? [(CO6)(Understand/LOCQ)]
 (b) How can you change regions in your phone? [(CO5)(Apply/IOCQ)]
 (c) Evaluate the utility of environmental sensors. [(CO6)(Evaluate/HOCQ)]
 6 + 4 + 2 = 12
9. (a) Which class is used for audio and video? Explain some methods that containing that class for control over audio and video recording. [(CO5)(Apply/IOCQ)]
 (b) Write some methods that can be used for accessing the camera. [(CO5)(Create/HOCQ)]
 8 + 4 = 12

Cognition Level	LOCQ	IOCQ	HOCQ
Percentage distribution	52.08	35.41	12.51

Course Outcome (CO):

After the completion of the course students will be able to

CO1: Describe Android platform, Architecture and features.

CO2: Design User Interface and develop activity for Android App.

CO3: Use Intent, Broadcast receivers and Internet services in Android App.

CO4: Design and implement Database Application and Content providers.

C05: Use network connectivity, multimedia, camera and Location based services in Android App.

C06: Discuss various sensor, security issues in Android platform.

*LOCQ: Lower Order Cognitive Question; IOCQ: Intermediate Order Cognitive Question;
HOCQ: Higher Order Cognitive Question