

Roll No. ....

Total Pages : 03

MCA/M-24

**24529**

MOBILE APPLICATION DEVELOPMENT

MCA-20-43

Time : Three Hours]

[Maximum Marks : 75

**Note :** Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

**(Compulsory Question)**

1. (a) Define Android Virtual Devices (AVD).  
(b) Discuss the need of permissions in Android.  
Describe the permissions to set system functionalities like Internet.  
(b) What is the purpose of using toggle buttons ?  
(c) Define persistent storage.  
(d) How Fragment is different from Activity ? **5×3=15**

**Unit I**

2. (a) Explain the MVC pattern of mobile application. **8**

(b) What is Android ? Describe the features of Android. 7

3. (a) List out any *two* layouts with suitable examples. 8

(b) Describe Android File Structure. 7

### Unit II

4. What is Intent ? Explain the types of intents in android with example. 15

5. (a) What is the difference between RadioButton and CheckBox in android ? Explain with example. 10

(b) Describe callbacks and override in android. 5

### Unit III

6. (a) Write an android application to play an audio file. 10

(b) Write a short note on client server application. 5

7. (a) Explain the life-cycle of Fragment. 10

(b) How MapView is different from MapActivity ? 5

### Unit IV

8. Explain SQLite. Write steps to create, open and close the database cursors. 15

9. (a) How to store data internally in Android application ? 10

(b) How to show shadow effects in Android application ? 5