Roll No. ☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

MCA (2015 & Onward)   (Sem.–4)
MOBILE APPLICATION DEVELOPMENT
Subject Code : MCA-401
M.Code : 74119

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students have to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

1. Explain the architecture and working of Android operating system.

2. a) Discuss the procedure for designing user interface design.

   b) What are different enterprise requirements of mobile applications?

SECTION-B

3. a) Discuss various design principles of mobile software engineering.

   b) Write a short note on Android SDK.

4. a) Describe the directory structure of Android project.

   b) What is meant by Android XML? Explain.

SECTION-C

5. Explain the use of following App components :

   a) Intents and Intent filters

   b) App Widgets

6. a) What is the use of Action Bar? Explain.

   b) Discuss the connectivity of mobile devices in mobile application development.

SECTION-D

7. What is the procedure for building an application for iOS? Explain.

8. Write a short note on the following concepts :

   a) iOS Development Environment

   b) Windows phone Environment

SECTION-E

9. **Write briefly :**

   a) What is alert class?

   b) Write a short note on networking of mobile devices.

   c) What is meant by modifiability of a mobile application?

   d) Define AVD manager.

   e) Name **any two** plugins for adding virtual devices.

   f) What are content providers?

   g) Write steps to add animation in mobile application.

   h) How window applications differ from iOS Apps?

   i) Name different layers of iOS.

   j) Define swift.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.