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Total No. of Pages: 02

Total No. of Questions: 09

MCA (2015 & Onwards) (Sem. – 4)
MOBILE APPLICATION DEVELOPMENT

M Code: 74119

Subject Code: MCA-401

Paper ID: [74119]

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

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

SECTION A

1. Explain the architecture and working of android operating system. (10)
2. a) Describe the mechanism of integrating cloud-services, networking and hardware into mobile applications.
b) Explain the structure of Android program. (6,4)

SECTION B

3. What is Android? Why did we open the android source code? What are the advantages and downsides of android? (10)
4. What is Dalvik Virtual Machine? What is use and function of Dalvik virtual machine in Android? (10)

SECTION C

5. a) Explain how the lifecycle of an android activity works? (5,5)
b) What is intent? How many different intent types are there?
6. a) How to design user interface for Multi-platform explain in detail. (5,5)
b) What best practices must be followed to ensure that application work on multiple android devices of different screen size, processing power and features?

SECTION D

7. a) What is IOS? Is it an operating system or programming language? Which programming language is used to develop an application in IOS? Explain. (6, 4)
b) What are some do's and don'ts in IOS market?
8. Discuss in detail about windows phone platform. List steps for building Windows Phone application. (10)

SECTION E

9. Write short notes on following with help of example/diagram if needed:
 - a) Scalability of mobile application
 - b) JavaSE
 - c) Difference between an SDK and SDK Manager?
 - d) App Widget
 - e) Swift
 - f) Difference between process and threads.
 - g) List Design Principles for mobile applications.
 - h) Advantages of IOS.
 - i) Downsides of Windows Phone Platform.
 - j) Future of Android.