Roll. No:

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: IV - CARRY OVER THEORY EXAMINATION - SEPTEMBER 2022

Subject: Mobile Application Development

Time: 3 Hours   Max. Marks: 100

General Instructions:

1. The question paper comprises three sections, A, B, and C. You are expected to answer them as directed.

2. Section A - Question No- 1 is 1 marker & Question No- 2 carries 2 mark each.

3. Section B - Question No-3 is based on external choice carrying 6 marks each.

4. Section C - Questions No. 4-8 are within unit choice questions carrying 10 marks each.

5. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION A   20

1. Attempt all parts:-

1-a.   SIM stands for? (CO1)   1

(a) Subscriber Interface Module

(b) Subscriber Identification Module

(c) Subscriber Interface Modem

(d) Subscriber Identification Modem

1-b.   What is ADB in android? (CO1)   1

(a) Image Tool

(b) Development Tool

(c) Android Debug Bridge

(d) None of above

1-c.   Which of the following virtual machines is used by the Android operating system? (CO2)   1

(a) JVM

(b) Dalvik virtual machine

(c) Simple virtual machine

(d) None of the above

1-d.   Android is based on which of the following language? (CO2)   1

        (a) Java

        (b) C

        (c) C++

        (d) None of the above

1-e.   For using Google map which permission you will specify in the AndroidManifest.xml?   1
(CO3)

        (a) USEMAP

        (b) USE_GOOGLE_MAP

        (c) INTERNET

        (d) None of the above.

1-f.   Which of the following method is used by services to clean up any services? (CO3)   1

        (a) onStop() method

        (b) stopService() method

        (c) onDestroy() method

        (d) stopSelf() method

1-g.   As an Android programmer, what version of Android should you use as your minimum   1
development target? (CO4)

        (a) Versions 1.6 or 2.0

        (b) Versions 1.0 or 1.1

        (c) Versions 1.2 or 1.3

        (d) Versions 2.3 or 3.0

1-h.   Which piece of code used in Android is not an open source? (CO4)   1

        (a) WiFi driver

        (b) Audio driver

        (c) Power management

        (d) Keypad driver

1-i.   iOS stands for? (CO5)   1

        (a) Internet Operating System

        (b) Intelligent Operating System

        (c) iPhone Operating System

        (d) None of the above

1-j.   Default UI Property is? (CO5)   1

            (a) Assign

            (b) Atomic

            (c) Non-atomic

            (d) None

2. Attempt all parts:-

2.a.   List Down the types of mobile applications. (CO1)   2

2.b.   What are the different versions of Android OS that you remember? (CO2)   2

2.c.   Name the various layouts in view group. (CO3)   2

2.d.   What type of software is/are required for android app development? (CO4)   2

2.e.   Explain features of iOS. (CO5)   2

<div align="center">SECTION B   30</div>

3. Answer any <u>five</u> of the following:-

3-a.   Write down the full form and explain the meaning of the various extensions used in mobile   6
            development? (CO1)

            a. Apk

            b. Phone

            c. Mobile

            d. Exe

            e. IPA

            f. Prc

3-b.   Discuss the apple iOS platform for mobile applications. (CO1)   6

3-c.   What do you mean by interface and how they are applicable in android. (CO2)   6

3-d.   What is multiple inheritance and how to perform it in Java. Also explain its importance in   6
            android if any. (CO2)

3.e.   Explain the process of communication between sender and receiver with REST APIS and its   6
            architecture. (CO3)

3.f.   Discuss android app development process flow using Android Studio, Eclipse, IntelliJ IDA.   6
            Which you find is most suitable. (CO4)

3.g.   Explain control transfer statements that are used in swift language. (CO5)   6

<div align="center">SECTION C   50</div>

4. Answer any <u>one</u> of the following:-

| 4-a. | Differentiate web application and mobile application. (CO1) | 10 |

| 4-b. | Differentiate Native apps, Hybrid apps and browser-based web apps. (CO1) | 10 |

5. Answer any <u>one</u> of the following:-

| 5-a. | What is the difference between a class and an object? How it is created in android? (CO2) | 10 |

| 5-b. | Explain the following things in the context of android device: Screen size, Screen density, Orientation, Resolution, Density-independent pixel. (CO2) | 10 |

6. Answer any <u>one</u> of the following:-

| 6-a. | Explain in detail about Map View System of Google Maps. (CO3) | 10 |

| 6-b. | Write the procedure to add the animations in User Interface in android. (CO3) | 10 |

7. Answer any <u>one</u> of the following:-

| 7-a. | Explain with diagram the mobile cloud computing architecture. (CO4) | 10 |

| 7-b. | Explain the methods: getColumnNames(), getCount(), is Closed(), getPosition(), openOrCreateDatabase(String path, SQLiteDatabase.CursorFactory factory) in SQLite database. (CO4) | 10 |

8. Answer any <u>one</u> of the following:-

| 8-a. | What are the collection types that are available in swift? Explain with examples. (CO5) | 10 |

| 8-b. | Explain ACID properties. Does SQLite support the ACID properties. (CO5) | 10 |