Course Code : CST 313   EVFU/MW – 18 / 6054

Fifth Semester B. E. (Computer Science and Engineering) Examination

MOBILE APPLICATION PROGRAMMING

Time : 3 Hours]   [Max. Marks : 60

Instructions to Candidates :—
    (1)   All questions carry marks as indicated against them.
    (2)   Assume suitable data wherever necessary.

1. Solve any **Two** :

    (a)   What is Frequency Reuse ? Discuss the various channel allocation strategy used by the network providers.   5 (CO 1)

    (b)   With neat diagram explain WAP Protocol Stack.   5 (CO 1)

    (c)   Explain the following :

        (1) FDMA

        (2) TDMA

        (3) CDMA   5 (CO 1)

2. Solve any **Two** :

    (a)   What is meant by user experience ? State the fundamental building blocks of user experience. State the difference between UI and UX. 5 (CO 2)

    (b)   What is contextual enquiry ? Discuss the steps involved in contextual enquiry.   5 (CO 2)

    (c)   Write short notes on the following :

        (1) Interactive Voice Response

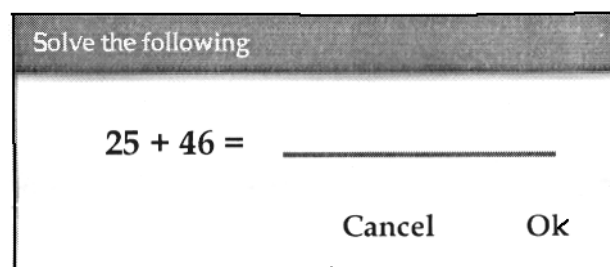   (2) SMS/MMS

        (3) Native Applications.   5 (CO 2)

3. (a) Explain the role of the following in an android app :

    (1) AndroidManifest.xml

    (2) R.java

    (3) LogCat   6 (CO 2)

    (b) Discuss with proper code how to manage screen orientation changes in android.   4 (CO 2)

OR

    (c) Illustrate the role of Activity Stack in android. Discuss the 4 states of an activity.   4 (CO 2)

4. (a) Demonstrate with proper code how to create a menu. Write a code such that when a menu item is clicked, it goes to a new activity.

                                                                       3 (CO 2)

OR

    (b) Explain the role of Handler in ProgressBar with proper Java code.

                                                                       3 (CO 2)

    (c) Create an android application which contains a button, when the button is clicked it generates two random numbers. The two numbers are displayed in the dialog. Provide a textfield in dialog for user to give the sum of two numbers. When OK is pressed and the answer is correct it should give a Toast message ?

                                                                       7 (CO 2)

5. Solve any **Two** :

    (a) Elaborate on how android handles files. Also discuss the how we can save the data on external SD card.   5 (CO 3)

(b)   Consider an app which stores name, address and telephone number of user registered. Create a helper class for inserting and deleting. Show all the records whose telephone number starts with "0712".   5 (CO 3)

(c)   What is Async Task ? How is different from Thread ? Discuss the methods used in async task.   5 (CO 3)

6. Solve any **Two** :

(a)   Create an app with an edit text and "Send SMS" button. When the button is pressed SMS is sent to all the comma separated numbers ?

            5 (CO 4)

(b)   Explain lifecycle of a bounded service with proper code.   5 (CO 4)

(c)   Demonstrate with proper code how to convert given Latitude and Longitude to an Address.   5 (CO 4)