15620

MCA 4th Semester Examination

Mobile Computing (NS)

MCA-404

Time : 3 Hours   Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Candidates are required to attempt five questions in all selecting one questions from each sections A, B, C & D of the question paper and all the subparts of the questions in Section E.

SECTION - A

1. How frequency can be reused in cellular systems? Explain cell design and how interference can be minimized in cell design?
    (12)

2. Explain the steps performed during call setup. How data is disseminated in mobile networks?   (12)

SECTION - B

3. Explain the Transactions in database systems with examples. What are the properties of a transaction?   (12)

4. (a)   Explain the architecture of Android.

    (b)   Which of the libraries are used to use the internal properties of emulator devices?   (6+6=12)

SECTION - C

5. (a)   Explain creation of activities in Android.

                                                              [P.T.O.]

    (b)   Explain the main activity in application development. How the map based activities are created?   (6+6=12)

6. (a)   What do you mean by layouts? Explain the components of a layout.

    (b)   Explain the use of menus in an application.   (6+6=12)

SECTION - D

7. How to use Android to do instant messaging? How a connection is established and used in sending and receiving of SMS?   (12)

8. (a)   Explain the layers in the architecture of Bluetooth.   (6)

    (b)   How to do Sensor management in Android Programming?
                                                               (6)

SECTION - E

9. (a)   Explain the characteristic of MANET.

    (b)   What are the components of Mobile IP?

    (c)   How hand-off happens in adjacent cell?

    (d)   How a call is setup in a cellular network?

    (e)   Why DHCP is required in mobile communication?

    (f)   How Date and Time is captured in applications?

    (g)   How to use the Phone Camera in development of applications?

    (h)   Explain the mechanism behind mobile transport layers.

    (i)   How chat sessions are managed?

    (j)   What do you mean by adapter?

    (k)   Write a note on handover.

    (l)   What is bearer?   (12×1=12)