Time:3Hrs   marks:80

Instructions:

1. Question No 1 is Compulsory, Attempt any Three from Q no 2 to Q No. 6
2. Describe your answers with neat sketches and examples wherever necessary
3. Assume Suitable Data if required and mention the same in your Answer.

Q1 a) What are various Mobile Communication and Application Environments for the
Following: 10

    i)   Business
    ii)   Location Based Services.
    iii)   Banking Services
    iv)   Vehicles

  b) Explain Various Types of antennas along with their Radiation Pattern.   10

Q2 a) What is Spread Spectrum? What are the various advantages for the same?   5

  b) What are Various Advantages and Disadvantages of Small Cells in Cellular
    system   5
  c) Explain DSSS and FHSS in detail.   10

Q3 a) What do you mean by hidden & Exposed station Problem? How they can be
avoided.   10

  b) Explain GSM System Architecture in Detail   10

Q4 a) Why it is necessary to have Handover Mechanism in GSM? Explain possible
handover scenarios in short.   10

b) List various Security services offered by GSM. Explain A3 A5 and A8 Algorithm in
brief.   10

Q5 a) Explain Packet Delivery Mechanism "To and From Mobile Node" with the help of
Mobile IP Network Diagram.   10

b) Explain Tunnelling and Encapsulation in brief. What are the various types of
Encapsulation techniques.   10

Q6. Write a Short Note on the Following. (ANY FOUR).   20

    a) Bluetooth
    b) HIPERLAN
    c) IPV6
    d) CDMA
    e) Snooping TCP

****

39EC756ECF51F839F7949701EF8F0B60