

EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, JUNE 2010

CS.04.804.E/IT.04.302 – Mobile Communication Systems

Time: Three hours

Maximum: 100 marks

- I. 1. Explain the mobile and wireless devices of increasing performance with suitable example.
2. Define Multiplexing and how it will be helpful in the Frequency Division Multiplexing.
3. Draw and explain what protocol is used in GSM.
4. Write the three different layers in UMTS architecture.
5. Define roaming and write the steps for roaming between access points.
6. Draw the protocol architecture of IEEE 802.11
7. What is meant by tunneling and encapsulation?
8. Write a short note about selective retransmission.

(8x5: 40 marks)

II.(a) What type of multiplexing is used in cellular systems and explain. Give the advantages and disadvantages of cellular systems. (15)

(or)

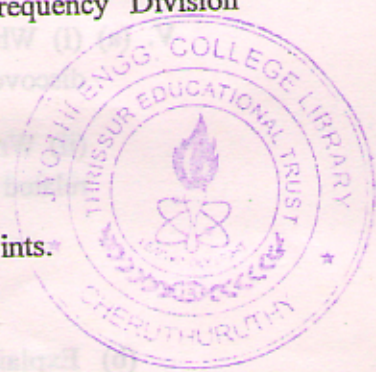
b) Compare SDMA, TDMA, FDMA and CDMA mechanisms (15)

III.(a) Explain briefly and draw GSM system architecture. (15)

(or)

(b) (i) Give the expansion for GEO, LEO and MEO and explain the advantages and disadvantages. (10)

(ii) What is meant by cyclical repetition of data (5)



IV. (a) (i) Write the difference between Infrared and Radio Transmission. (8)

(ii) What types of handover are supported in WATM? (7)

(or)

(b) Explain the different mechanisms MAC in a Bluetooth system (15)

V. (a) (i) What are the different types of agents and how the agents advertisement are discovered and handled (9)

(ii) Write the difference between the wired networks and ad hoc wireless networks related to routing. (6)

(or)

(b) Explain in detail about snooping TCP and write the advantages and disadvantages. (15)