[5561]-260

B.E.(Electronics & Telecommunication Engg.)
MOBILE COMMUNICATION
(2012 Pattern) (Semester-II) (404189) (End Sem)

Time : 2½Hours]   *[Max. Marks : 70*

Instructions to the candidates:

1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 orQ.6, Q.7 or Q.8, Q.9 or Q.10*
2) *Neat diagram must be drawn wherever necessary.*
3) *Figure to the right side indicate full marks.*

Q1) a) Explain packet switching with advantages & disadvantages. **[6]**

    b) Over duration of 4800 second, 60 subscribers initiate a call over a observation interval of 20 minutes. Calculate. **[4]**

       i) load offered to the network by subscriber

       ii) average subscriber traffic

OR

Q2) a) A group of 30 trunks provide 0.015 grade of service when offered 14 Erlang of traffic. How much is the grade of service improved if one extra trunk is added to the group? **[3]**

    b) Explain with neat diagram, operation of sequential read/ random write time division time switching- phase operation & slotted operation. **[7]**

Q3) a) With the help of neat diagram explain Out band & In-band signaling.**[7]**

    b) Draw different formats used in signal unit of HDLC protocol? **[3]**

OR

Q4) a) Write wire-line PSTN to Mobile call procedure. **[4]**

    b) State different propagation mechanism & Explain free space propagation? **[6]**

Q5) a) Draw & explain forward control channel & Reverse voice channel. **[8]**

    b) Explain the call handling procedure from conventional telephone in AMPS. **[4]**

    c) Write basic radio transmission parameters in GSM system? **[5]**

OR

P.T.O.

Q6) a) Draw & Explain GSM burst structure?   **[5]**

b) Explain different handovers in GSM?   **[8]**

c) Draw & explain different interfaces used in GSM architecture?   **[4]**

Q7) a) Explain Ciphering & Deciphering used in GSM?   **[4]**

b) Draw & explain speech encoder or decoder used in GSM?   **[8]**

c) Write note on supplementary services used in GSM?   **[5]**

OR

Q8) a) Explain HSCSD used for GSM data transfer with different services?**[8]**

b) Write short note on EDGE?   **[4]**

c) Draw & explain GPRS network architecture?   **[5]**

Q9) a) Explain IS-95 with its advantages & disadvantages?   **[7]**

b) Explain downlink control channel used in IS-95?   **[9]**

OR

*Q10)*a) Draw & explain CDMA 2000 system architecture   **[5]**

b) Draw and Explain forward traffic channel of WCDMA?   **[5]**

c) Write important parameters of WCDMA system?   **[6]**

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