P3112

[5670]-212

B.E. (Electronics & Telecommunication)
MOBILE COMMUNICATION
(2012 Pattern) (Semester - II)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates :

1) *Answer Q.1 OR Q.2, Q.3 OR Q.4, Q.5 OR Q.6, Q.7 OR Q.8*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figure to the right indicate full marks.*
4) *Use of electronic pocket calculator is allowed.*
5) *Assume suitable data, if necessary.*

Q1) a) Explain electronics switching system. **[6]**

b) What is switching? Explain the different switching functions in digital switching System. **[8]**

c) Draw and explain cell splitting and sectoring in detail. **[6]**

OR

Q2) a) Explain in detail the space division switching systems. **[8]**

b) Calculate the availability and unavailability of single and dual processor system with MTBF=10000 HRS. and MTTR=20 HRS. in 25 years. **[6]**

c) Explain different channel Assignment strategies. **[6]**

Q3) a) Explain the GSM architecture in detail. **[8]**

b) Explain the handover mechanism in AMPS. **[8]**

OR

Q4) a) Explain the radio transmission parameters in GSM. **[8]**

b) Explain call procedure in completing a call from mobile (cellular) to mobile (cellular). **[8]**

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Q5) a) Write a short note on GMSK Modulation. **[6]**

b) Draw a neat diagram and explain block scheme of GSM full rate encoder. **[6]**

c) Explain different data services used in GSM. **[6]**

OR

Q6) a) Draw and explain the architecture of SMS service. **[6]**

b) Explain the different services offered by GPRS. **[6]**

c) Explain speech coding used in GSM system. **[6]**

Q7) a) Explain in detail Rake Receiver used in CDMA. **[8]**

b) Explain different motivations for use of CDMA system. **[8]**

OR

Q8) a) Explain the importance of 3G mobile system. List the different services used in 3G mobile system. **[8]**

b) Compare WCDMA and CDMA 2000 system. **[8]**

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