Total No. of Questions : 8]

SEAT No. :

P2284

[Total No. of Pages : 2

[5254]-620-A

B.E. (E & TC)

WIRELESS NETWORKS

(2012 Pattern) (Semester - II) (Elective - IV)

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) ***Figures to the right side indicates full marks.***
4) ***Assume suitable data if necessary.***

Q1) a) Give the difference between 3GPP and 3GPP2. Discuss the evolution of 3GPP2 wireless technologies. **[7]**

b) What is OFDM? How it is spectrally efficient? **[6]**

c) What is WEP? What are the various types of authentication in 802.11? **[7]**

OR

Q2) a) Explain basic network of mobile system. **[6]**

b) What is importance of VPN? What are the various types of mobile VPN? Explain any one of them. **[7]**

c) Describe 3GPP Release 4 distributed network architecture with suitable diagram. **[7]**

Q3) a) What are the important features of LTE systems? With help of block diagram describe various components required in LTE architecture. **[9]**

b) Write notes on : **[9]**

i) LTE scheduler

ii) Enhanced Node (eNode)

OR

Q4) a) What are the LTE channel types? Explain radio channels components. **[9]**

b) How MIMO used to enhance the performance of LTE? Draw and explain eNode B 4 × 4 MIMO. **[9]**

P.T.O.

Q5) a) What is WiMAX? Give the functionalites of WiMAX. **[8]**

b) Explain the modulation techniques used in WiMAX. Describe 802.16e frame layout. **[8]**

OR

Q6) a) Explain frequency planning & spectrum used in WiMAX technology. **[8]**

b) Write short notes on : **[8]**

i) Power Management in WiMAX.

ii) Handover mechanism in WiMAX

Q7) a) What are the advantages of VoIP over other traditional networks? Explain the challenges for implementation of VOIP. **[8]**

b) What is MEGACO in VOIP? List and explain MEGACO commands. **[8]**

OR

Q8) a) What are advantages of using SIP in VOIP? Explain the complete. Functionalities of SIP for VOIP calls. **[8]**

b) Write short notes on : **[8]**

i) Resource Reservation Protocol.

ii) VOIP QOS.