

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 functionalities 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.

