

Total No. of Questions : 8]

SEAT No. :

P4771

[Total No. of Pages : 2

[5561]-269

B.E. (E & TC)

**WIRELESS NETWORKS (Theory)**  
**(2012 Pattern) (Elective - IV) (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) Figures to the right indicates full marks.
- 4) Assume suitable data, if necessary.

**Q1)** a) With neat diagram explain the 4G wireless access technology paths. [7]

b) Explain in detail different protocols for WiFi. [7]

c) Explain architecture of 3GPP release 4 - network. [6]

OR

**Q2)** a) What is wireless migration? Explain in brief. [7]

b) What is VPN? Describe various types of mobile VPNs. [7]

c) Explain speech & data services supported by UMTS. [6]

**Q3)** a) What are important features of LTE systems? Explain LTE Architecture in detail with diagram. [9]

b) What is VOLTE & LTE Advanced? Explain in details. [9]

OR

**Q4)** a) What is carrier aggregation in LTE? Discuss in brief. [9]

b) What is Handover? With suitable diagram explain X2 handover mechanism. [9]

**P.T.O.**

- Q5)** a) Explain the generic architecture of WiMAX Technology with suitable schematic. [8]
- b) Explain the modulation techniques used in WiMAX. Describe 802.16e frame layout. [8]

OR

- Q6)** a) What is meant by interface mitigation? With suitable diagram explain frequency planning with Fractional Frequency Reuse (FFR). [8]
- b) Explain Hand over process in WiMAX. [8]

- Q7)** a) With suitable diagram explain the functions of each layer in VoIP protocol. [8]
- b) What are advantages of using SIP in VoIP? Explain the complete functionalities of SIP for VOIP calls. [8]

OR

- Q8)** a) Explain in detail H.323 network architecture. [8]
- b) Write note on VoIP - Quality of Service (QoS) [8]

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