

Total No. of Questions : 8]

SEAT No. :

P3131

[Total No. of Pages : 2

[5354]-620-A

B.E. (E & TC)

WIRELESS NETWORKS (Theory)

(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 right indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) Draw and explain the 4G wireless access technology paths. [7]
- b) With neat diagram explain wireless network architecture, what are the characteristics & functions of Access Point (AP) & wireless Adaptor (CPE). [7]
- c) What are commonality among WCDMA CDMA - 2000, TD-CDMA & TD-SCDMA. [6]

OR

- Q2)** a) Give the data capability supported by 2.5G and 3G technologies. [7]
- b) List the different protocols with specifications used in Wi-Fi. [7]
- c) Describe the four service classes of UMTS. [6]

- Q3)** a) Sketch LTE Network and explain the functions of basic five elements. (i.e UE, e Node B, E-UTRA, EPC & Non-LTE application servers) [9]
- b) Explain cell search and cell reselection process. [6]
- c) Describe Heterogenous Network (HetNET) in detail. [3]

OR

- Q4)** a) What is TDD? Explain LTE-TDD frame structure with relationships. [9]
- b) Give the scheduler decisions involved in LTE with policies. [9]

P.T.O.

- Q5) a)** What is unique aspect of WiMAX? Compare 802-16 variants specifications with frequency band and functionality. [8]
- b)** Which are three methods incorporated in WiMAX for QoS? Explain in brief. [8]

OR

- Q6) a)** Explain the functions of MS, ASN & CSN in detail in WiMAX system. [8]
- b)** With signal flow diagram, describe the handover process in WiMAX. [8]

- Q7) a)** Give the advantages of VoIP. What are the challenges of VoIP? [8]
- b)** Describe the functions of [8]

- i) Gateway
- ii) Gatekeeper
- iii) Multipoint Control Unit (MCU) of H.323.

OR

- Q8) a)** Describe redirect server operation in SIP. [8]
- b)** What are the different MEGACO commands? Explain the function of each. [8]

