[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.7or Q.8.*
2) *Neat diagrams must be drwan 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 varients 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]**

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