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P975

APR-17/BE/Insem - 55 B.E. (Electronics and Telecom) Wireless Networks (Elective - IV (d)) (2012 Pattern) (Semester - II) (Theory)

Time: 1 Hour] [Max. Marks:30

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q,3 or Q.4., and Q.5 or Q.6
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Use of non-programmable electronic pocket calculator is allowed.
- 5) Assume suitable data, if necessary.
- Q1) a) With the help of suitable diagrams, explain in brief the different link duplex and multiple access techniques.[7]
 - b) Enlist all the technologies/versions in sequence from 2G to 4G evolved only from GSM/3GPP. [3]

OR

- **Q2)** a) What is handoff in mobile wireless networks? Differentiate between hard, soft, soft-softer handoffs. [7]
 - b) How is OFDM Different than FDM or FDMA. [3]
- **Q3)** a) Why do we use CSMA/CA in IEEE802.11 instead of CSMA/CD? Describe the working of CSMA/CA. [7]
 - b) Discuss the difference between infrastructure based and adhoc networks. [3]

OR

- **Q4)** a) Enlist and explain different services used in Wi-Fi for proper working of the WLANs. [7]
 - b) Compare in brief the IEEE802.11 with IEEE802.15 technologies. [3]

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- **Q5)** a) Describe in brief different types of 3G technologies standardized by IMT2000. [7]
 - b) Explain the difference between TD-CDMA and TD-SCDMA. [3]

OR

- **Q6)** a) With the help of suitable schematic, describe all IP WCDMA Release 5 network architecture. [7]
 - b) Why do we use CDMA principles in most of the 3G technologies? [3]

