

Total No. of Questions :6]

SEAT No. :

**P975**

[Total No. of Pages : 2

**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-soft 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]

**P.T.O.**

- 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]

