

Code: EC7T5A

**IV B.Tech - I Semester – Regular/Supplementary Examinations  
October - 2018**

**WIRELESS COMMUNICATIONS AND NETWORKS  
(ELECTRONICS & COMMUNICATION ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11 x 2 = 22 M

1.

- a) Expand FDMA and TDMA.
- b) Define packet radio.
- c) In X.25 protocol DTE, DCE, DSE are how many layered devices.
- d) Write the two differences between wireless and fixed telephone networks.
- e) Define Common channel signaling.
- f) Point out the importance of Registration in Mobile IP scenario.
- g) List out two wireless LAN applications.
- h) Write any two functions of physical layer of OSI model.
- i) List out the three types of access codes of Bluetooth.
- j) Expand CDPD and WPAN.
- k) Define ad hock network.

## PART – B

Answer any **THREE** questions. All questions carry equal marks.

$$3 \times 16 = 48 \text{ M}$$

2. a) List out the features of FDMA. 8 M
- b) If a normal GSM time slot consists of 6 trailing bits, 8.25 Guard bits, 26 training bits and two traffic burst of 58 bits of data, find the frame efficiency. 8 M
3. a) Analyze the basic block diagram of cellular system. 10 M
- b) Compare circuit switching and packet switching. 6 M
4. a) Interpret the block diagram of ISDN. 8 M
- b) Define IP terminologies: Mobile node, Home address, Home network and Link. 8 M
5. a) Draw and explain wireless LAN configuration. 8 M
- b) Compose the diagram based differences between IEEE 802 protocol layers compared with OSI model. 8 M
6. Write about the architecture of GPRS. 16 M