

Code: EC7T5A

**IV B.Tech - I Semester –Regular / Supplementary Examinations
March - 2021**

**WIRELESS COMMUNICATIONS & 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) List the benefits of spread spectrum.
- b) Give the equations for calculating throughput in pure ALOHA and slotted ALOHA protocols.
- c) Explain briefly the function of X.25 protocol.
- d) What is the significance of packet size in a packet switching network?
- e) What are the services provided by wireless session protocol?
- f) Define the capabilities provided by Mobile IP.
- g) List and briefly define key requirements for WLANs.
- h) What is the difference between a MAC address and an LLC address?
- i) What is the purpose of frequency hopping in Bluetooth?
- j) What are the differences between HIPERLAN and WLAN.
- k) What is mobile data?

PART – B

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

3 x 16 = 48 M

2. a) Illustrate the working of Direct Sequence Spread Spectrum technique using BPSK. 10 M
b) Explain the principle of CSMA. 6 M
3. a) Distinguish circuit switching and packet switching. 8 M
b) List the properties of PSTN. 8 M
4. a) Discuss the architecture of wireless application protocol. 8 M
b) Compare the features of ISDN and SS7. 8 M
5. a) Explain the power management and roaming in IEEE 802.11. 8 M
b) Describe the function of L2CAP protocol in Bluetooth standard. 8 M
6. a) With a neat sketch explain the architecture of CDPD. 8 M
b) Discuss the services of wireless ATM. 8 M