Code: EC7T5A

**IV B.Tech - I Semester –Regular / Supplementary Examinations
JANUARY 2022**

**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) Outline the important features of SDMA.
   b) What are the advantages and disadvantages of Time Division Duplex (TDD)
   c) List out the services provided by private branch exchange (PBX)
   d) What are the limitations of wireless networking?
   e) What is common channel signalling and how it can be accomplished?
   f) Explain the basic capabilities required for the operation of Mobile IP?
   g) List out the strengths and weaknesses of Infrared LANs.
   h) Give any four Bluetooth radio and baseband key parameters.
   i) What is CDPD?
   j) List out the challenges for the implementation of wireless ATM.
   k) Explain the network services provided by GPRS.

PART – B

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

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

2. a) Bring out the salient features of TDMA? Also explain frame efficiency of TDMA.   8 M

   b) What is spread spectrum multiple access? Also explain features of CDMA.   8 M

3. a) Distinguish between circuit switching and packet switching techniques.   8 M

   b) Explain with neat sketches the hierarchy of X.25 protocol in OSI model.   8 M

4. a) Draw the block diagram of ISDN and explain in detail its features.   8 M

   b) Outline the important capabilities and features of WML script. Also specify any four WML script statements.   8 M

5. a) Explain RTS and CTS access mechanism in IEEE 802.11 WLAN.   8 M

   b) Summarize the radio specifications of Bluetooth.   8 M

6. a) Explain the location and mobility management procedures in GPRS with neat sketches.   8 M

   b) Explain the similarities between HIPERLAN-1 and HIPERLAN-2.   8 M