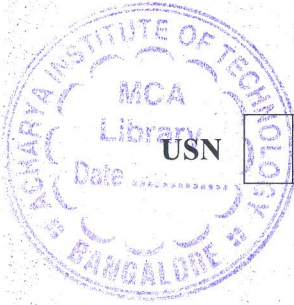# CBCS SCHEME

17MT551

Fifth Semester B.E. Degree Examination, Dec.2023/Jan.2024
Wireless Networks and Communication

Time: 3 hrs. Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. What is Wireless Communication System? Explain the block diagram of wireless communication system. **(10 Marks)**
   b. Discus wireless communication problems encountered in wireless networks. **(10 Marks)**

OR

2 a. Explain how wireless network are classified based on range and application. **(10 Marks)**
   b. Explain various wireless networking issues encountered in wireless network. **(10 Marks)**

Module-2

3 a. With a neat diagram, explain WBAN architecture and its characteristics. **(10 Marks)**
   b. Explain routing protocols required for WBAN in network layer. **(10 Marks)**

OR

4 a. Describe the network architecture for WPAN. **(10 Marks)**
   b. With a neat diagram, explain Bluetooth protocol stack. **(10 Marks)**

Module-3

5 a. Describe QPSK digital modulation technique with a neat figure. **(10 Marks)**
   b. Explain OFDM digital modulation technique. **(10 Marks)**

OR

6 a. Discuss diversity techniques in wireless communication. **(10 Marks)**
   b. Explain RAKE receiver used for CDMA system. **(10 Marks)**

Module-4

7 a. With a neat diagram, explain network components and architecture of WLAN. **(10 Marks)**
   b. Explain important features of WIMAX. **(10 Marks)**

OR

8 a. With a neat diagram, explain the GSM architecture. **(10 Marks)**
   b. With a neat diagram, explain the network components and architecture of WMAN. **(10 Marks)**

Module-5

9 a. Discuss Quantitative and Qualitative features of wireless Adhoc Network. **(10 Marks)**
   b. With a neat diagram explain the wireless sensor network architecture. **(10 Marks)**

OR

10 a. Explain 5 routing protocols of Wireless Sensor Network (WSN) **(10 Marks)**
    b. With a neat diagram explain the architecture and characteristics of VANET. **(10 Marks)**

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