CBCS SCHEME

USN 1 A Y 1 7 M T 0 3 7

17MT551

Fifth Semester B.E. Degree Examination, Jan./Feb. 2021
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. Explain with neat diagram wireless switching technology. **(08 Marks)**
b. Discuss wireless communication problems encountered in wireless network. **(08 Marks)**
c. A mobile receiver communicates at a distance of 5km with the transmitter which is having the operating frequency of 750MHz. Calculate the path loss in the system. **(04 Marks)**

OR

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

Module-2

3 a. With neat diagram, explain WBAN architecture and its characteristics. **(10 Marks)**
b. Discuss Low Power Listening (LPL) protocols i) S-MAC and ii) T-MAC. **(10 Marks)**

OR

4 a. Explain with neat diagram, Bluetooth protocol stack. **(08 Marks)**
b. Explain with neat diagram Zigbee stack architecture. **(07 Marks)**
c. Discuss WPAN applications. **(05 Marks)**

Module-3

5 a. Explain the following:
i) Error detection and correction codes
ii) Speech coding
iii) Block interleaving **(10 Marks)**
b. Explain OFDM digital modulation technique. **(10 Marks)**

OR

6 a. Discuss diversity techniques in wireless communication. **(08 Marks)**
b. Explain ultra wideband radio technology. **(05 Marks)**
c. Write a note on smart antennas. **(07 Marks)**

Module-4

7 a. With neat diagram, explain WLAN network architecture. **(10 Marks)**
b. With neat diagram, explain WMAN network architecture. **(10 Marks)**

OR

8 a. Explain with neat diagram GPRS network architecture. **(10 Marks)**
b. Explain features, architecture, functions and limitations of CDPD. **(10 Marks)**

Module-5

9 a. Discuss classification of WSN routing protocols. **(10 Marks)**
b. With neat diagram, explain WSN architecture. **(10 Marks)**

OR

10 a. With neat diagram, explain architecture and protocols in VANET. **(10 Marks)**
b. Explain unique characteristics of VANETs. **(10 Marks)**

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