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15MT551

Fifth Semester B.E. Degree Examination, June/July 2023
Wireless Networks and Communication

Time: 3 hrs.   Max. Marks: 80

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 systems. **(08 Marks)**
    b.   Explain the various wireless communication problems. **(08 Marks)**

OR

2   a.   Explain how wireless networks are classified based on range and application. **(08 Marks)**
    b.   Explain various networking issues encountered in wireless network. **(08 Marks)**

Module-2

3   a.   Describe the network architecture of WPAN. **(08 Marks)**
    b.   Explain Bluetooth protocol stack with a neat diagram. **(08 Marks)**

OR

4   a.   With a neat diagram, explain WBAN architecture (wireless body area network) **(08 Marks)**
    b.   Explain the design issues in WBAN system and list the application of WBAN system. **(08 Marks)**

Module-3

5   a.   Describe QPSK digital modulation technique with a neat figure. **(08 Marks)**
    b.   Explain characteristics of the Air Interface with respect to outdoor and indoor propagation case. **(08 Marks)**

OR

6   a.   Explain the wireless telecommunication coding technique with a neat diagram. **(08 Marks)**
    b.   Discuss diversity techniques in wireless communication. **(08 Marks)**

Module-4

7   a.   With a neat diagram, explain WLAN network architecture. **(08 Marks)**
    b.   With neat diagram, explain WMAN network architecture. **(08 Marks)**

OR

8   a.   Explain with a neat diagram GSM network architecture. **(08 Marks)**
    b.   Discuss the features of WiMax. **(08 Marks)**

Module-5

9   a.   Explain quantitative and qualitative features of wireless Adhoc Network. **(08 Marks)**
    b.   Explain 5 routing protocols of Wireless Sensor Network (WSN). **(08 Marks)**

OR

10 a.   Explain with a neat diagram the architecture of VANET and also mention its characteristics. **(08 Marks)**
    b.   Discuss any 2 MAC protocols of MANET. **(08 Marks)**

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