CBCS SCHEME

USN | | | | | | | | | | |

17MT551

Fifth Semester B.E. Degree Examination, June/July 2023
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. Explain network architecture and components in WBAN. **(10 Marks)**
b. Discuss WBAN routing protocols in network layer. **(10 Marks)**

OR

4 a. Explain with neat diagram WPAN architecture and its topologies. **(10 Marks)**
b. Explain with neat diagram Zigbee protocol stack. **(10 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. Explain WLAN architecture and network components. **(10 Marks)**
b. Explain architecture and network components of WMAN. **(10 Marks)**

OR

8 a. With net diagram GSM network architecture. **(10 Marks)**
b. Explain CDPD network architecture, key features, functions and limitations. **(10 Marks)**

Module-5

9 a. Explain five routing protocols of WSN. **(10 Marks)**
b. Explain with neat diagram wireless Mesh network architecture and give its classification. **(10 Marks)**

OR

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

* * * * *