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Fifth Semester B.E. Degree Examination, Feb./Mar. 2022 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 System? (10 Marks)
b. Define Pathloss. A mobile receiver communicates at a distance of 5km with the transmitter which is having the operating frequency of 750 MHz. calculating the pathloss in the system. (06 Marks)

OR

- 2 a. Explain various Networking issues. (08 Marks)
b. Define Packet Switching. With the neat diagram explain packet switching. (08 Marks)

Module-2

- 3 a. Explain the unique properties of WBAN with neat diagram. (08 Marks)
b. Explain the network architecture of WPAN. (08 Marks)

OR

- 4 a. Describe the Routing protocols suitable for WBAN in Network layer. (08 Marks)
b. List out the requirement of WPAN devices? Give the diagram of WPAN technologies. Briefly explain few important application of WPAN. (08 Marks)

Module-3

- 5 a. Explain in brief frequency hopping spread spectrum. (08 Marks)
b. Explain FSK digital modulation technique in detail along with supporting block diagram. (08 Marks)

OR

- 6 a. Explain Radio Base Station (RBS) transceiver unit in detail. (08 Marks)
b. With neat block diagram, explain the diversity operation in modulation. (08 Marks)

Module-4

- 7 a. Explain following WLAN components : i) WLAN adapters ii) Access points. (06 Marks)
b. Explain design requirements of WLAN. Determine the transfer of 40kB file with an 802.11 WLAN operating at 2 Mbps. (10 Marks)

OR

- 8 a. With a diagram, explain WMAN architecture. (06 Marks)
b. Explain LMDS system in detail along with block diagram. (10 Marks)

Module-5

- 9 a. Explain MANET single hop and multi hop architecture. (10 Marks)
b. List out the Quantitative and Qualitative features of Wireless Adhoc Networks. (06 Marks)

OR

- 10 a. Explain Wireless mesh network architecture. (08 Marks)
b. Write the various characteristics of VANETs. (08 Marks)

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