



CBCS SCHEME

15MT551

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020 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. With a neat block diagram, explain wireless communication system. (08 Marks)
b. With a neat diagram, classify wireless networks. (08 Marks)

OR

- 2 a. Explain various communication problems encountered in wireless network. (06 Marks)
b. Discuss various networking issues encountered in wireless network. (06 Marks)
c. Find the transmitted power, if a transmitting node is operating at a frequency of 90MHz and a mobile phone receiver at a distance of 650m establishes the communication with the transmitting node. Assume the captured power at the mobile phone is $1 \times 10^{-6}W$. (04 Marks)

Module-2

- 3 a. Discuss the design issues in WBAN. (08 Marks)
b. With a neat diagram, explain the network components and architecture of WBAN. (08 Marks)

OR

- 4 a. With a neat diagram, explain Bluetooth protocol stack. (08 Marks)
b. With a neat diagram, explain Zigbee protocol stack. (08 Marks)

Module-3

- 5 a. Explain the following:
i) Convolution encoder
ii) Block codes. (08 Marks)
b. Explain Spread Spectrum Modulation technique [FHSS]. (08 Marks)

OR

- 6 a. With a neat block diagram, explain RAKE receiver. (08 Marks)
b. Write a short note on diversity techniques. (08 Marks)

Module-4

- 7 a. With a neat diagram, explain network components and architecture of WLAN. (08 Marks)
b. Explain the important features of WIMAX. (08 Marks)

OR

- 8 a. With a neat diagram, explain network components and architecture of WMAN. (08 Marks)
b. With a neat diagram, explain GSM network architecture. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-5

- 9 a. Discuss Quantitative and qualitative features of wireless Adhoc network. (08 Marks)
b. Discuss MAC protocols of MANET. (08 Marks)

OR

- 10 a. Explain the routing protocols of WSN. (08 Marks)
b. Discuss the characteristics of VANETS. (08 Marks)

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