Reg. No. : | | | | | | | | | | |

Question Paper Code: 55423

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

Fifth Semester

Electrical and Electronics Engineering

01UEC523 – COMMUNICATION ENGINEERING

(Common to EIE and ICE)

(Regulation 2013)

Duration: 1.15 hrs Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The _____ signal can be detected with the help of synchronous detector.

   (a) SSB (b) DSB-SC (c) SSB-SC (d) none of these

2. VSB modulation is preferred in TV because

   (a) it reduces the bandwidth requirement to half
   (b) it avoids phase distortion at low frequencies
   (c) it results in better reception
   (d) none of these

3. Frequency shift keying is used mostly in

   (a) Satellite Communication (b) Telephony
   (c) Telegraphy (d) Radio Transmission

4. The bandwidth of BFSK is _____ that of the bandwidth of BPSK.

   (a) thrice (b) twice (c) less than (d) none of these

5. The information rate R is less than or equal to a rate C is called the

   (a) Channel capacity (b) Coding
   (c) Probability (d) Information rate

6. Linear codes are used for

(a) Forward error detection (b) Backward error detection
(c) Backward error correction (d) Forward error correction

7. The most important application of the spread spectrum technique is

(a) time division multiplexing (b) code division multiplexing
(c) both (a) and (b) (d) none of these

8. The _____ spread spectrum is a FM or FSK technique.

(a) Frequency Hopping (b) Direct Sequence
(c) Transistors (d) Semiconductor Lasers

9. _____ is used as a figure of merit for the fiber.

(a) Aperture angle (b) Refractive Index
(c) Numerical Aperture (d) None of these

10. Detector used in optical fiber is

(a) Photo diodes (b) LEDs
(c) Transistors (d) Semiconductor Lasers

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Explain the generation of FM signal using reactance modulator with neat diagram. (8)

12. Explain in detail about FSK. (8)

13. Encode the data 01001110 using NRZ, RZ, AMI coding. (8)

14. Discuss in detail the concept of TDMA and SDMA and their applications in wire and wireless communication. (8)

15. Explain the block diagram of an optical fiber communication system. (8)