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

Question Paper Code: 44405

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fourth Semester

Electronics and Communication Engineering

14UEC405 - ANALOG COMMUNICATION

(Regulation 2014)

Duration: 1.15 hrs Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The highest modulation frequency typically used in AM broadcast is

   (a) 5*kHz* (b) 10*kHz* (c) 15*kHz* (d) 25*kHz*

2. In a DSB-SC system with 100% modulation, the power saving is

   (a) 50% (b) 66% (c) 75% (d) 100%

3. In wideband FM system, the output signal to noise ratio increases

   (a) Linearly as the bandwidth (b) as the square root of the bandwidth
   (c) as the square of the bandwidth (d) as the cube of the bandwidth

4. The modulator stage in a radio transmitter is normally

   (a) Class A (b) Class B (c) Class AB (d) Class C

5. Random process is a function of

   (a) Random event and time (b) Random event and frequency
   (c) Random event and real number (d) None of these

6. Gaussian process is a

   (a) Wide sense stationary process (b) Strict sense stationary process
   (c) Both of the mentioned (d) None of these

7. Threshold for detection of FM signals using discriminator is about

(a) 100 dB (b) 30 dB (c) 200 dB (d) 1 dB

8. Equalization network is used to

(a) eliminate non-linear distortion (b) eliminate quantization
(c) compensate transmission loss (d) none of these

9. Indicate which of the following system is digital

(a) PPM (b) PWM (c) PDM (d) PCM

10. Time division multiplexing is used in

(a) Analog circuits (b) Digital circuits
(c) Modulation circuit (d) Multiplier circuits

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Explain the low-level and high-level modulation methods with help of figures. (8)

12. Draw the circuit diagram of Foster-Seeley discriminator and explain its working. (8)

13. Define and explain about auto correlation and cross correlation and its properties. (8)

14. Explain about shot noise, thermal noise and white noise process with suitable diagram. (8)

15. Explain the Generation and Demodulation procedure for PAM signal. (8)