

(ELE 5303-6)

**B.Sc. Degree (CBCS) Examinations**

FEBRUARY - 2022

EXAMINATION AT THE END OF SEMESTER- V

PART - II ELECTRONICS

**ELECTRONIC COMMUNICATIONS**

TIME : Three hours

Maximum : 60 Marks

**SECTION-A**

Answer any five out of 10 questions

Mark's: 5x4=20M

1. Define signal to noise ratio and band width.
2. Explain about bit rate and baud rate with waveforms.
3. Explain the need of modulation.
4. A 400W carrier is amplitude modulated to a depth of 75 % calculate the total power in the modulated wave ?
5. A 100M Hz carrier is modulated by a sinusoidal signal of frequency 8KHz through FM the frequency deviation is 40KHz find modulation index.
6. Explain the terms modulation index and frequency deviation.
7. Explain the terms sensitivity, selectivity, fidelity
8. Explain the characteristics of communication channels
9. State and explain sampling theorem in time domain.
10. What is Nyquist rate and Nyquist interval ?

**SECTION-B**

Answer All questions

Marks: 5x8M= 40M

11. (a) Draw and explain the block diagram of electronic communication system.  
(Or)  
(b) Explain various noises in electronic communication system.
12. (a) Explain the working of diode AM Demodulator with the help of neat diagram  
(Or)  
(b) Explain DSB SC generation using balanced modulator with the help of diagram.
13. (a) Explain the operation of Balanced slope detector with block diagram  
(Or)  
(b) Explain the working of simple frequency modulator ( reactance modulator)?
14. (a) Explain Crosby direct FM transmitter with block diagram  
(Or)  
(b) Explain the working of super heterodyne Receiver with the help of neat diagram
15. (a) Explain the generation of PPM and PDM with the help of circuit diagram.  
(Or)  
(b) Explain the generation of PAM with the help of circuit diagram.

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