B.Sc. DEGREE (CBCS) EXAMINATION, OCTOBER 2019

Third Semester

CORE COURSE - EL3CRT06 - ANALOG COMMUNICATION

(Common to B.Sc Electronics and Computer Maintenance Model III,B.Sc Electronics Model III)

2017 ADMISSION ONWARDS

005875B7

Maximum Marks: 80   Time: 3 Hours

Part A

Answer any ten questions.

Each question carries 2 marks.

1. What do you mean by noise figure?

2. What you mean by Single Side Band technique?

3. Define Vestigial Side Band System

4. Give modulation index of FM

5. Define Co- channel interference

6. What do you mean by wide Band FM?

7. What is a varactor diode modulator?

8. What is a Balanced Slope Detector?

9. What is a Phase Discriminator?

10. What is Tracking error in superheterodyne receiver?
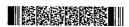
11. What is a Local Oscillator?

12. What is AFC?

(10×2=20)

Part B

Answer any six questions.

Each question carries 5 marks.

13. An amplifier operating over the frequency range from 1 8 MHz to 20MHz has a 10 -kilo ohm input resistor.What is the rms noise voltage at the input to this amplifier if the ambient temperature is 27 C

14. A 400 Watt carrier is modulated to a depth of 75%. Calculate the total power in modulated wave

15. Explain a pilot carrier system

16. Explain Independent Side band System

17. Explain the theory of Frequency modulation

18. Explain Pre- emphasis in FM

19. Explain a Reactance Modulator

20. Explain Slope detection in detail

21. Explain RF stage in a superheterodyne receiver

(6×5=30)

Part C

Answer any two questions.

Each question carries 15 marks.

22. Explain filter method of unwanted side band suppression with neat diagram

23. Explain Phase modulation. Compare FM and PM .

24. Explain the complete block diagram of the Armstrong frequency modulation system

25. With the help of suitable diagram ,Explain a Superheterodyne receiver

(2×15=30)