

2019

**B.Sc. Semester- V (Electronics)
(Discipline Specific Course-1)**

Title: Communication Electronics

Course Code: UETTDSE-501

Credits: 04

Max Marks: 80

Time allotted: 3:00 hours

Note: The Question paper contains three sections A, B and C.

SECTION- A

Note: It contains 5 very short answer type questions carrying 3 marks each. All the questions in this section are compulsory.

Q1: Explain the differences between resonant and non-resonant antennas?

Q2: Explain the term duality in Fourier Transforms?

Q3: Discuss some advantages of Amplitude Modulation.

Q4: What is Noise Triangle in FM?

Q5: Explain Sampling theorem?

SECTION- B

Note: -It contains 5 short answer type questions and each question carries 7 marks. All questions are compulsory.

Q1. What are Ground Waves? Explain the ground wave propagation.

Q2: Explain the time differentiation and frequency integration property of Fourier Transforms?

Q3: Explain the working of Balance Modulator of carrier suppression.

Q4: Discuss the working of Pre emphasis and De emphasis in FM.

Q5: Explain the generation and detection of PAM with suitable working diagram

SECTION- C

Note: -It contains 5 long answer type questions carrying 15 marks each. Attempt any 2.

Q1: Explain in detail the wave propagation in the ionosphere region of earth's atmosphere.

Q2: Define Fourier Transform and explain Fourier Transform of periodic signals?

Q3: What is Amplitude Modulation? Derive its mathematical equation.

Q4: Explain the Armstrong method of frequency generation with suitable working diagram.

Q5: What is PCM? Discuss its working, advantages, disadvantages, applications and explain the quantization noise.