

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2017
(Fifth Semester)**

Branch - **ELECTRONICS**

ELECTRONIC COMMUNICATION -1

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Name the group of wave propagation.
- 2 Define amplitude modulation.
- 3 What is meant by balanced modulator?
- 4 Write the important blocks of single sideband receivers.
- 5 Define angle modulation.
- 6 , What is de-emphasis?
- 7 What do you mean super heterodyne receiver?
- 8 Write the use of limiter in receiver section.
- 9 Show the pulse modulation techniques.
- 10 What is meant by Quantization?

SECTION - B (25 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a What is the electro magnetic spectrum? Draw and explain about the electro magnetic spectrum.
OR
b Describe the function of high & low level modulation.
- 12 a List out the types of side band transmission and write its advantages.
OR
b Write the operation of SSB receivers with neat diagram.
- 13 a Define frequency modulation and write the working of simple FM generator with neat diagram.
OR
b Elucidate the operation of noise suppression with neat sketch.
- 14 a Give the working of super heterodyne receiver with necessary diagram.
OR
b List out the FM discriminator characteristics.
- 15 a Give an account on transmission schemes for analog and digital signals.
OR
b Describe the operation of delta modulation with neat sketch.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Write about the following terms of ground wave, space wave and sky wave.
- 17 Describe the different types of SSB filters.
- 18 Derive an expression for FM mathematical solution.
- 19 Elucidate the operation of FM receiver with neat block diagram.
- 20 Discuss in detail about the process of Quantization.