Roll No. | | | | | | | | | | | | **Total No. of Pages :02**

Total No. of Questions : 09

B.Tech.(ECE)
(Sem.–4)

ANALOG COMMUNICATION SYSTEMS

Subject Code : BTEC-401
M.Code : 57593
Date of Examination : 02-07-22

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Answer briefly :

a) Define Noise and what are the various noises occurs in analog communication system.

b) What is the basic theory behind the phase modulation?

c) What is sensitivity in AM Reception?

d) Why the communication systems need modulation?

e) Discuss the low level and high level modulation.

f) Discuss the tuned Ratio frequency.

g) What do you understand by noise figure?

h) Discuss the principle of product modulator.

i) Discuss the analog communication system with diagram.

j) What do you understand by noise equivalent temperature?

SECTION-B

2. Give fair comparison between the phase modulation and frequency modulation.

3. Discuss the sampling theorem of PAM. Justify with a mathematical expression.

4. Write a brief note on generation and principle of AM.

5. Explain the image frequency rejection with diagram.

6. Explain the narrow band of FM and wide band of FM.

SECTION-C

7. Discuss the generation of SSB reception with a block diagram.

8. Comparison of SSB transition to conventional Amplitude modulation.

9. Write a note on basic elements of AM super-heterodyne Receiver.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.