

Roll No.

Total No. of Pages : 02

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B.Tech. (ECE) (Sem.-5)
ANALOG AND DIGITAL COMMUNICATION

Subject Code : BTEC-501-18

M.Code : 78297

Date of Examination : 17-11-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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) Differentiate between amplitude and angle modulations.
- b) What are the disadvantages of SSB modulation?
- c) What is the main reason to adopt modulation over direct communication?
- d) Give Nyquist criterion.
- e) What is the effect of ISI in communication system?
- f) Draw the block diagram of TDM.
- g) What are the advantages of DPCM?
- h) What do you mean by optimum detection of signals in noise?
- i) What is sampling?
- j) How can we convert phase modulated signal into frequency modulated signals?

SECTION-B

2. Explain principles of frequency modulation with expression.
3. Explain pulse code modulation and demodulation.
4. Describe the block diagram of generation of VSB modulated signals.
5. Derive the expression for random process Gaussian noise characteristics.
6. Draw and explain BFSK modulation.

SECTION-C

7. Explain various types of sampling processes.
8. What is the effect of noise in amplitude and angle modulations?
9. Draw and explain quadrature amplitude modulation and demodulation.

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.