

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (ECE) (Sem.-5)
ANALOG AND DIGITAL COMMUNICATION
Subject Code : UC-BTEC-501-18
M.Code : 78757

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**Write briefly :**

- 1) Differentiate between analog and digital signals.
- 2) What is the significance of carrier in modulation?
- 3) Draw the frequency spectrum of DSB-SC signal.
- 4) Enlist various types of noise in communication channel.
- 5) What do you mean by Unit impulse function?
- 6) Differentiate between FDM and TDM.
- 7) Explain aperture effect.
- 8) Define slope overload distortion in delta modulation.
- 9) What are the digital modulation formats?
- 10) What are the advantages of MSK?

SECTION-B

- 11) Derive the expression for AM wave.
- 12) Explain the sampling process and its various steps in detail.
- 13) Explain Adaptive Delta Modulation in detail.
- 14) Describe the noise in frequency modulation.
- 15) Draw and describe continuous phase modulation.

SECTION-C

- 16) Explain the generation and detection of VSB wave.
- 17) Draw and explain working of adaptive delta modulation.
- 18) Describe the generation and detection of QPSK.

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.