



BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to Guru Gobind Singh Indraprastha University, Delhi)

(An ISO 9001:2015 Certified Institution)

A-4, Paschim Vihar, Main Rohtak Road, New Delhi – 110 063

Department of Electronics and Communication Engineering

Student Name _____

Enroll. No _____

Semester: V sem

Date: _____

Course Code. : ETEC303

Course Title: Digital Communication

Quiz/Test No.: 03

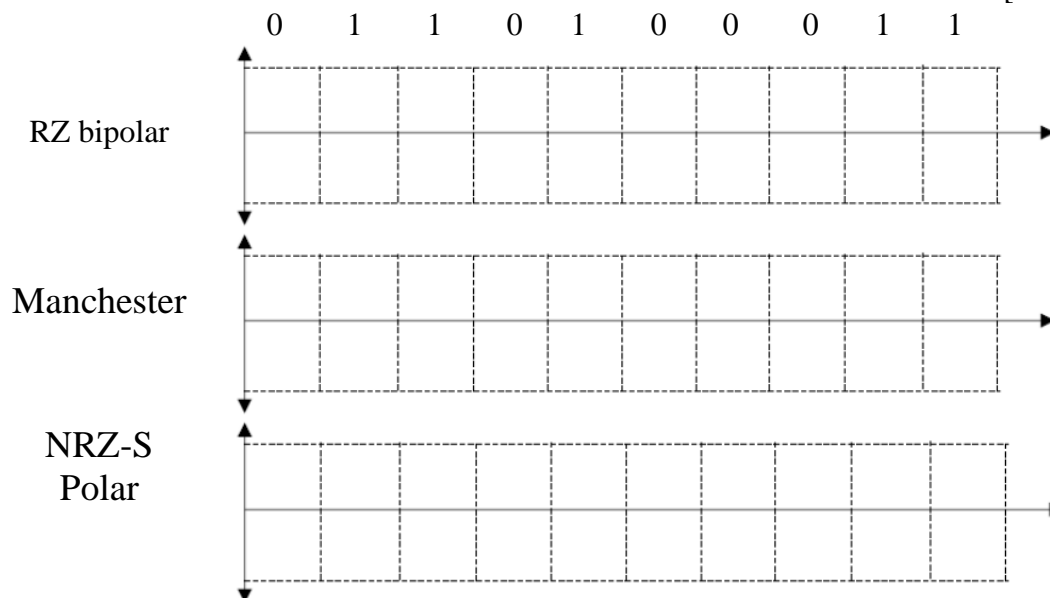
Marks Obtained _____

Max. Marks : 01

Evaluator's Sign _____

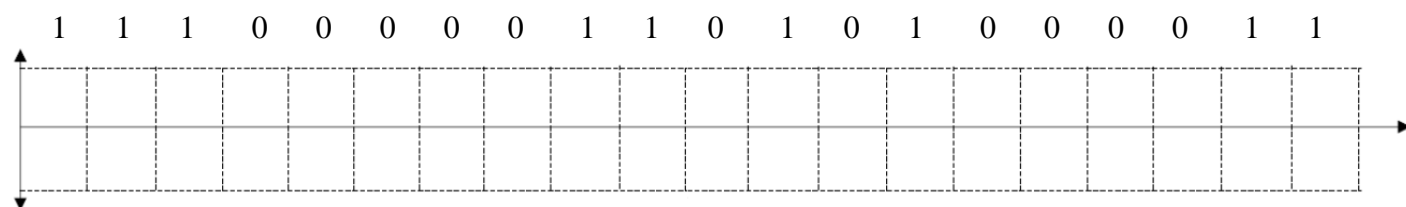
Q1. Draw properly labelled waveforms of the mentioned line code for the given bit stream

[0.1+0.2+0.1 = 0.4 marks]



Q2. Draw a properly labelled waveform for the HDB3 codeword for the given bitstream.

[0.2 marks]



Q3. If $R(\tau)$ is the auto-correlation function of a real, wide-sense stationary random process, then which of the following is NOT true? [0.2 marks]

a) $R(\tau) = R(-\tau)$ b) $|R(\tau)| \leq R(0)$ c) $R(\tau) = -R(-\tau)$ d) Mean square value of the process is $R(0)$

Q4. In a binary reception system, if the probability of receiving a '1' is 0.4, find the probability that out of 20 transmitted bits, 12 are '1's'. [0.2 marks]
