



**Department of Electronics and Communication Engineering**  
**Innovative Teaching Methods**

Activity Title	Quiz – Group Activity
Faculty Name/Department	Mr.M. Kamarajan
Mapped Course Name & Code	Digital Communication & EC8501
Date	24.7.2022
Benefitted Students (Year / Sem / Dept)	III/V/ECE
Topic	PCM and Line Coding
Description	<p>The students are divided in groups and each group the question is asked and those who raise the answer first to the question is awarded marks if the allotted group doesn't give the answer the question is passed to the next group.</p> <p>The group which answers the question gives extra bonus marks</p>
Course Outcomes (CO)	Design and implement base band transmission schemes
Performance Indicator (PI)	1.4.1
Mail ID ( for review)	<a href="mailto:ece.kamarajan@msajce-edu.in">ece.kamarajan@msajce-edu.in</a>
Activity Photos	



### Topics/ Questions:

**1. In polar RZ format for coding, symbol '0' is represented by**

- a) Zero voltage      b) Negative voltage      c) Pulse is transmitted for half the duration
- d) Both b) and c) are correct

**2. In a uni-polar RZ format,**

- a) The waveform has zero value for symbol '0'      b) The waveform has A volts for symbol '1'
- c) The waveform has positive and negative values for '1' and '0' symbol respectively
- d) Both (a) and (b) are correct

**3. Polar coding is a technique in which**

- a) 1 is transmitted by a positive pulse and 0 is transmitted by negative pulse      b) 1 is transmitted by a positive pulse and 0 is transmitted by zero volts
- c) None of the above

**4. The polarities in NRZ format use**

- a) Complete pulse duration      b) Half duration      c) Both positive as well as negative value
- d) Each pulse is used for twice the duration

**5. The maximum synchronizing capability in coding techniques is present in**

- a) Manchester format      b) Polar NRZ      c) Polar RZ      d) Polar quaternary NRZ

**6. The advantage of using Manchester format of coding is**

- a) Power saving      b) Polarity sense at the receiver      c) Noise immunity      d) None of the above

**7. Alternate Mark Inversion (AMI) is also known as**

- a) Pseudo ternary coding      b) Manchester coding      c) Polar NRZ format      d) None of the above

**8. For a line code, the transmission bandwidth must be**

- a) Maximum possible b) As small as possible c) Depends on the signal d) None of the above

**9. Alternate Mark Inversion (AMI) is also known as**

- a) Pseudo ternary coding b) Manchester coding c) Polar NRZ format d) None of the above

**10. The advantage of using Manchester format of coding is**

- a) Power saving b) Polarity sense at the receiver c) Noise immunity d) None of the above

**11. The maximum synchronizing capability in coding techniques is present in**

- a) Manchester format b) Polar NRZ c) Polar RZ d) Polar quaternary NRZ

**Marks:**

Group Name	Reg No.	Topic	Total
A	311820106001	Line Coding, PCM Concepts	20
	311820106002		20
	311820106007		20
	311820106009		20
	311820106305		20
B	311820106003	Baseband Data Transmission	18
	311820106004		18
	311820106005		18
	311820106005		18
	311820106006		18
C	311820106010	Properties of Line codes	17
	311820106011		17
	311820106013		17
	311820106014		17
	311820106016		17
D	311820106017	Power Spectral Density of line codes	19
	311820106020		19
	311820106021		19
	311820106022		19
	311820106025		19
E	311820106017	Linear Predictive codes	20
	311820106301		20
	311820106302		20
	311820106303		20
	311820106306		20

**Outcome:**

1. Better understanding the concepts of line codes
2. Better understanding of polar and Return to zero codes