Q.27 What is slope overload error?, How it is determined?

Q.28 With diagram, explain in brief QAM.

Q.29 Write in brief the PN sequences.

Q.30 Write main features of baudot code.

Q.31 Compare the features of WDM with FDM.

Q.32 Represent 010100110 in RZ & Manchester code.

Q.33 Draw the block diagram of TDM multiplexing arrangement & explain in brief.

Q.34 Write main features of Frequency hopping spread spectrum.

Q.35 How PPM is derived from PWM, Explain.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain in detail the Direct sequence spread spectrum technique.

Q.37 i) Draw a FDM system and explain its function using block diagram.

ii) Write the advantages of delta modulation over DPCM.

Q.38 i) By taking an example, explain error detection and correction using parity.

ii) Show how the Hamming's code is used for error detection.

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Roll No. .....

Subject:- Digital Communication System

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Entropy is the measure of_____

a) Amount of information at output

b) Amount of information that can be transmitted

c) Number of error bits from total number of bits

d) None of these

Q.2 Sampling theorem is used for converting_____

a) Continuous time signal to discrete

b) Discrete to continuous signal

c) Continuous time signal to discrete & vice versa

d) None of these

Q.3 The spread spectrum occurs in _____ Modulation system.

a) Amplitude

b) Frequency

c) Phase

d) Amplitude & Frequency

Q.4 Which pulse modulation technique is least expensive?

a) PAM b) PPM

c) PWM d) PCM

Q.5 _____ is a type of digital modulation.

a) AM b) FM

c) FSK d) PM

Q.6 The coding system used in digital telemetry is_____

a) PAM b) PWM

c) PPM d) PCM

Q.7 Which can detect two bit errors?

a) Parity check b) C.R.C

c) Parity & C.R.C d) All of these

Q.8 The technique in which full band width is used for full time by all users is_____

a) FDMA b) CDMA

c) TDMA d) All of these

Q.9 In a flat top sampling _____ is kept constant.

a) Phase b) Frequency

c) Amplitude d) Time period

Q.10 The capacity of a channel is given by _____

a) No. of digits in coding

b) Volume of information

c) Maximum rate of information transmitted

d) Band width required

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Define bit rate.

Q.12 Expand ASCII.

Q.13 Write any two features of ASK

Q.14 QPSK stands for _____

Q.15 Write any two causes for error in coding.

Q.16 Define Hartley's Law.

Q.17 Write any two advantages of FDMA.

Q.18 Define frame in TDM.

Q.19 Draw a PAM wave.

Q.20 Define granular noise.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 State Shannon -Hartley theorem, give it's importance.

Q.22 Explain how pulse modulation is different from continuous wave modulation.

Q.23 State & explain sampling theorem, write it's importance.

Q.24 Define channel capacity, write its equation.

Q.25 Draw the block diagram of PSK receiver.

Q.26 Explain the importance of synchronization in data communication.