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181053/171053

5th Sem / Branch : Eltx.
Sub. : Digital Communication

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 The modulation techniques used to convert analog signal into digital signal are
- Pulse code Modulation
 - Delta Modulation
 - Adaptive delta Modulation
 - All
- Q.2 The factors that cause quantizing error in delta modulation are:
- Slope overload distortion
 - Granular Noise
 - A & B both
 - None
- Q.3 Which type of demodulator is used in the frequency hopping technique?
- Coherent
 - Non coherent

- Coherent And Non coherent
- None of the above

- Q.4 MODEM stands for
- Modifying Electromagnetic Waves
 - Delta Modulation
 - Modulator=Demodulator
 - None
- Q.5 Types of Modulation used in MODEMs.
- FSK
 - QPSK
 - QAM
 - All above
- Q.6 Blocking is not a problem in a _____ switch
- Single stage
 - Two stage
 - Multistage
 - Three stage
- Q.7 Which one of the following is analog?
- PCM
 - PWM
 - Delta Modulation
 - Differential PCM
- Q.8 The advantage of space switching is that is _____?
- Is instantaneous
 - is error free
 - Need no flow control
 - is free from blocking
- Q.9 In differential Pulse Code modulation techniques, the decoding is performed by _____
- Sampler
 - Accumulator
 - PLL
 - Quantizer
- Q.10 Advantages of digital communication are :
- Easy multiplexing
 - Easy processing
 - Reliable
 - All of mentioned

SECTION-B

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

- Q.11 Define PPM.
- Q.12 Define DPCM.
- Q.13 Define FSK.
- Q.14 Define QPSK.
- Q.15 Define Data Communication.
- Q.16 Define Quantization
- Q.17 Define Crosstalk
- Q.18 Define Equalizers.
- Q.19 Define ICW.
- Q.20 STS_____.

SECTION-C

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

- Q.21 Explain basic block diagram of data communication system.
- Q.22 Write a short note on working principle of ASK.
- Q.23 Write a note on working principle of QPSK.
- Q.24 Write a note on bandwidth requirements of data transmission circuits.
- Q.25 Write a note on equalizers.
- Q.26 Explain the concept of COMPANDING.
- Q.27 What is need and function of MODEM.
- Q.28 Explain working principle of TST switch.

- Q.29 Explain various modes of modem Operations.
- Q.30 Explain the concept of noise in data communication circuit.
- Q.31 State and prove low pass sampling theorem.
- Q.32 List the advantages and disadvantages of PCM.
- Q.33 Explain the error of quantization.
- Q.34 Compare analog and digital communication systems.
- Q.35 Explain two tone modulation

SECTION-D

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

- Q.36 Explain various Frequency hopping spread spectrum techniques.
- Q.37 Explain various modem Modulation methods.
- Q.38 Explain PAM, PPM and PWM.