5th Sem / Electronics & Communication
Subject:- Digital Communication

Time : 3Hrs.   M.M. : 100

SECTION-A

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

Q.1   A signal can be recovered from its samples by_____
                                                                        (CO1)
   a)   Band Pass Filter   b)   Band Stop Filter
   c)   Low Pass Filter   d)   High Pass Filter

Q.2   The process of signal compression & expansion is called_____   (CO1)
   a)   Amplification   b)   Companding
   c)   Compression   d)   Modulation

Q.3   The main advantage of PCM is_____   (CO1)
   a)   Less band width   b)   Less power
   c)   Better multiplexing   d)   Better

Q.4   _____ is a type of digital modulation.   (CO2)
   a)   AM   b)   FSK
   c)   FM   d)   PM

Q.5   The extra bit in MODEM is used for_____   (CO2)

   a)   Error correction   b)   Error Detection
   c)   Noise   d)   Distortion

Q.6   In simplex mode, the transmission takes place in _____ mode.   (CO3)
   a)   Omni directional   b)   Unidirectional
   c)   Bidirectional   d)   All of these

Q.7   TST is a _____stage combination switch.   (CO3)
   a)   1   b)   2
   c)   3   d)   4

Q.8   RS-232 is an example of_____transmission.(CO3)
   a)   Asynchronous   b)   Synchronous
   c)   Both Asynchronous and Synchronous
   d)   None of these

Q.9   Which one of the following is also called as ON-OFF keying .   (CO3)
   a)   ASK   b)   PSK
   c)   FSK   d)   QPSK

Q.10 A MODEM is connected to _____   (CO5)
   a)   key board   b)   Telephone lines
   c)   Monitor   d)   Printer

SECTION-B

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

Q.11 Define transmission medium.   (CO1)

Q.12 Define synchronous transmission. (CO1)

Q.13 Define quantization. (CO2)

Q.14 Draw a PWN wave. (CO2)

Q.15 Define granular noise. (CO2)

Q.16 QPSK stands for _____ (CO3)

Q.17 Draw a half duplex circuit. (CO4)

Q.18 Define transmission delay in data transmission. (CO4)

Q.19 Define bit length. (CO4)

Q.20 Define Modem interfacing. (CO5)

SECTION-C

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

Q.21 Draw the block diagram of digital communication system & explain in brief. (CO1)

Q.22 Differentiate between serial & parallel transmission. (CO1)

Q.23 Draw block diagram of FHSS system, explain in brief. (CO2)

Q.24 State & Prove Sampling theorem. (CO2)

Q.25 What is slope overload error?, how it is determined? (CO2)

Q.26 Write the principle & working of PCM. (CO2)

Q.27 Differentiate between PSK & FSK. (CO3)

Q.28 Write main features of BPSK. (CO3)

Q.29 What are communication protocols? (CO4)

Q.30 Differentiate between asynchronous & synchronous transmission. (CO4)

Q.31 Write the concept of cross talk. (CO4)

Q.32 What are the problems of noise & electrical distortion in data transmission? (CO4)

Q.33 What are different functions of Modem in communication system? (CO5)

Q.34 Draw & explain block diagram of STS switch (CO6)

Q.35 Differentiate between circuit & packet switching . (CO6)

SECTION-D

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

Q.36 Explain in detail the Adaptive Delta Modulation. Show how it overcomes the draw backs of delta modulation. (CO2)

Q.37 With the help of block diagram, explain ASK system (CO3)

Q.38 i) Write short note on echo suppressors (5) (CO4)

   ii) Explain RS-232 C interface in brief. (5) (CO5)

Note : Course Outcome (CO) mentioned in the question paper is for official purpose only.