

No. of Printed Pages : 4
Roll No

181053/171053

5th Sem. / ECE

Subject : Digital Communication

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Objectives questions. All questions are compulsory *eight* (10x1=10)
8x2
(Course Outcome/CO)

- Q.1 The conversion of an analog signal into digital signal as called the _____ process. (CO-1)
- Q.2 The combination of compressor and expander is called as _____. (CO-2)
- Q.3 PCM stands for _____. (CO-2)
- Q.4 DPSK stands for _____. (CO-3)
- Q.5 In sampling theorem the relation between sampling frequency and modulating frequency is given by the formula _____. (CO-2)
- Q.6 MODEM stands for _____. (CO-5)

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- Q.7 _____ switching techniques indicates the transfer of coded values from input to output during the same interval of time. (CO-6)
- Q.8 The capacity of the channel can be increased by reducing in band noise power. (True/False) (CO-4)
- Q.9 STS stands for _____. (CO-6)
- Q.10 Nyquist criterion used for pulse shaping to avoid ISI. (True/False) (CO-4)

SECTION-B

Note: Very Short answer type questions. Attempt any

- ten parts* *eight* $10 \times 2 = 20$ 8×3
Q.11 What is data communication? (CO-1)
- Q.12 Define Cross talk. (CO-4)
- Q.13 What do you mean by equalizers (CO-4)
- Q.14 Define MODEM. (CO-5)
- Q.15 What do you understand by FSK? (CO-3)
- Q.16 Write the ways to increase channel bandwidth. (CO-2)

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- Q.17 What do you mean by STS? (CO-6)
- Q.18 Define echo Suppressor. (CO-4)
- Q.19 Define MODEM interfacing. (CO-5)
- Q.20 Write full form of UART and USART. (CO-5)
- Q.21 Name any two types of switches. (CO-6)
- Q.22 What is ICW? (CO-3)

SECTION-C

Note: Short answer type questions. Attempt any five questions out of ten. 5x8=40

- Q.23 Write the advantages of digital communication system over analog communication. (CO-1)
- Q.24 Explain Quantization and error of Quantization (CO-2)
- Q.25 What do you understand by frequency hopping spread spectrum technique? (CO-2)
- Q.26 Discuss phase shift keying. (CO-3)
- Q.27 Write short note on (CO-4)
- a) Noise b) Data transmission speed.
- Q.28 What is ASK? Explain. (CO-3)

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- Q.29 What are the various types of MODEM according to transmission speed? (CO-5)
- Q.30 What is the need and function of MODEM? (CO-5)
- Q.31 Differentiate between Packet switching and Message Switching. (CO-6)
- Q.32 Write down the characteristics of data transmission circuits. (CO-4)

SECTION-D

Note: Long answer type questions. Attempt any ^{two} ~~three~~ questions. 2x10=20

- Q.33 Draw and explain the block diagram of PCM System. <https://www.hsbteonline.com> (CO-2)
- Q.34 Explain the principle and working of QPSK with the help of block diagram. (CO-9)
- Q.35 Explain various modes of MODEM operation. (CO-5)
- Q.36 Explain various types of noise in digital communication system. (CO-4)

(Note: Course outcome/CO is for office use only)

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