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**Computer Engg.**
**Subject:- Data Communication**

Time : 3Hrs. M.M. : 100

**SECTION-A**

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

Q.1 What is largest unit of data?

a) tera byte b) giga byte
c) byte d) mega byte

Q.2 ASCII stands for:-

a) American special computer for information interaction.
b) American special computer for information interchange.
c) American special code for information interaction.
d) American standard code for information interchange

Q.3 Both stations can transmit and receive data simultaneously

a) simplex b) half duplex
c) full duplex d) unicode



Q.4 What is smallest representation of data?

a) byte b) mega byte
c) kilobyte d) giga byte

Q.5 Which of the following is not property of signals?

a) delay b) phase
c) amplitude d) frequency

Q.6 Types of digital to analog conversion.

a) ASK b) PSK
c) FSK d) all of the above

Q.7 What components used in PCM technique?

a) sampler b) quantizer
c) encoder d) all of the above

Q.8 Digital data refers to the information that is

a) continuous b) discrete
c) bits d) bytes

Q.9 Multiplexing is used in -

a) packet switching
b) circuit switching
c) data switching
d) packet and circuit switching

Q.10 In TDM, slots are further divided into-

a) Seconds b) frames
c) packets d) bits

## SECTION-B

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

Q.11 In frequency shift keying, frequency of the _____ changes with the change in data signal.

Q.12 Radio waves support frequency range of_____.

Q.13 What is redundant bit?

Q.14 Define topology.

Q.15 Transmission media are usually categorized as-

a) determinate or indeterminate

b) fixed or unfixed

c) guided or unguided

d) metallic or non metallic

Q.16 Define periodic signals.

Q.17 Define baseband transmission.

Q.18 Which multiplexing is based on variable time slots.

Q.19 What are working frequencies of microwaves and infrared waves?

Q.20 Define noise.

## SECTION-C

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

Q.21 Differences between analog and digital signal.



Q.22 Discuss transmission impairments.

Q.23 What is need of modulation?

Q.24 Explain digital to analog conversion.

Q.25 Redundancy increases the message size, but still used. Explain why?

Q.26 Explain guided transmission media.

Q.27 Explain parity bit method with example.

Q.28 What is cyclic redundancy test method, explain?

Q.29 Discuss frame format of synchronous communication.

Q.30 What are various data flow networks?

Q.31 Compare serial and parallel transmission.

Q.32 Explain FDM.

Q.33 What impact error does on signal and data?

Q.34 Explain AM and FM.

Q.35 What are characteristics of composite signal?

## SECTION-D

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

Q.36 What are different types of network, compare LAN, MAN and WAN?

Q.37 What are different factors used for performance measure of data transmission?

Q.38 What is analog to digital conversion, explain delta modulation with diagram?