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**3rd Sem / Computer, IT  
Subject:- Data communication**

Time : 3Hrs.

M.M. : 100

**SECTION-A**

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

- Q.1 Which transmission impairment makes a signal weak ? (CO-2)  
a) Noise                  b) Attenuation  
c) Jitter                  d) Bandwidth
- Q.2 Aperiodic signals \_\_\_\_\_ (CO-2)  
a) Repeats its cycle periodically  
b) Do not repeat  
c) CRC  
d) None of these
- Q.3 Full from of CRC is \_\_\_\_\_  
a) Cycle Reduce Check  
b) Code Random check  
c) Cycle Round check  
d) Cycle Redundancy check

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- Q.4 Full form of TDM is \_\_\_\_\_  
a) Twisted Division Multiplexing  
b) Time Division Multiplexing  
c) Time Division Microwave  
d) Time Dual Multiplexing
- Q.5 What is largest unit of data ?  
a) Tera Byte              b) Giga Byte  
c) Byte                    d) Mega Byte
- Q.6 Both stations can transmit and receive data simultaneously (CO-1)  
a) Simplex                b) Half Duplex  
c) Full Duplex            d) Unicode
- Q.7 \_\_\_\_\_ not a type of unguided transmission media  
a) Fiber Optics            b) Microwave  
c) Radio Wave             d) Infrared
- Q.8 Which of the following is not a type of multiplexing  
a) ADM                    b) FDM  
c) TDM                    d) WDM
- Q.9 FSK is the example of which type of conversion  
a) Analog to Analog      b) Digital to Analog  
c) Analog to Digital      d) Digital to Digital
- Q.10 Double error means \_\_\_\_\_  
a) One bit error            b) two bit error  
c) Three bit error        d) None of above

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## **SECTION-B**

**Note:** Objective type questions. All questions are compulsory.  $(10 \times 1 = 10)$

Q.11 Full form of DM \_\_\_\_\_

Q.12 Define parity bit.

Q.13 List the name of any two causes behind impairments.

Q.14 WDM stands for \_\_\_\_\_.

Q.15 \_\_\_\_\_ bits acts as redundant bit that helps in error detection.

Q.16 In frequency shift keying, frequency of the \_\_\_\_\_ changes with the change in data signal.

Q.17 Transmission media are usually categorized as \_\_\_\_\_.

Q.18 Define Data communication.

Q.19 List any two types of errors.

Q.20 Define Noise.

## **SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions.  $(12 \times 5 = 60)$

Q.21 Difference between synchronous and asynchronous TDM.

Q.22 Write a note on MAN.

Q.23 Write five differences between periodic signal and aperiodic signal.

Q.24 Compare serial and parallel transmission?

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Q.25 Differentiate between forward error correction and retransmission.

Q.26 Explain the distributed processing.

Q.27 Differentiate between forward error detection and retransmission.

Q.28 What do you mean by Multiplexing Explain their types also.

Q.29 Explain guided transmission media.

Q.30 Explain the cyclic redundancy check.

Q.31 Discuss frame format of synchronous communication.

Q.32 Explain the concept of FDM with the help of diagram.

Q.33 Explain block parity to detect the double error.

Q.34 Write a note on Radio Wave.

Q.35 Explain fiber optics cable with its advantages.

## **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions.  $(2 \times 10 = 20)$

Q.36 What do mean by unguided media. Explain any two types of unguided media in detail.

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

Q.38 Explain analog to analog conversion-AM, FM and PM.

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