BACHELOR OF SCIENCE (COMPUTER SCIENCE) (CBCS - 2018 COURSE)
T.Y.B.Sc.(Computer Science) Sem-V : WINTER :- 2021
SUBJECT: DATA COMMUNICATION & NETWORKING-I

Day : Tuesday
Date 1/2/2022

W-20123-2021

Time : 02:00 PM-05:00 PM
Max. Marks: 60

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.

Q.1 Answer **ANY TWO** of the following: **(12)**

a) Differentiate between Virtual Circuit and Datagram.

b) What is meant by baseband and broadband technologies?

c) Explain SONET in detail.

Q.2 Answer **ANY TWO** of the following: **(12)**

a) Explain – Router, Repeater and Bridge.

b) Describe twisted wire pair and co-axial cable with neat diagram.

c) Differentiate between and LAN and WAN.

Q.3 Answer **ANY TWO** of the following: **(12)**

a) Explain the role of NIC. State its principles.

b) Describe the working of Sliding Window Protocol in detail.

c) Write a note on Gigabyte and Standard Ethernet.

Q.4 Answer **ANY THREE** of the following: **(12)**

a) Explain the working of token ring with suitable diagram.

b) Write a note on Client-Server Architecture.

c) Describe the working of ATM in brief.

d) Discuss various transmission modes with suitable diagram.

Q.5 Answer **ANY FOUR** of the following: **(12)**

a) State the purpose of SMTP and FTP.

b) Define Computer Network. State its goals.

c) Elaborate the role of network software.

d) Differentiate between Modulation and De-modulation techniques.

e) Draw seven layer architecture of OSI model and state the functionality of physical layer and data link layer.

f) Define network topology. Draw any four topologies.

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