

Unique Paper Code : 62344330
Name of the Course : B.A. (Prog.)
Name of the Paper : Computer Networks and HTML
Semester : III
Year of Admission : 2019 and onwards

Duration: 3 Hours

Maximum Marks: 75

Attempt any four questions
All questions carry equal marks.

Q1. If five devices are arranged in a network, discuss the consequences in each case if a connection fails in star, bus, mesh and ring topology.

If there are 10 devices connected in a topology then how many ports and links required in mesh topology?

What are the criteria necessary for an effective and efficient network?

We have two computers connected by an Ethernet hub at home. Is this a LAN or a WAN? Explain the reason.

Q2. Write an HTML program to design the frameset given below.

Frame1	Frame2	
	Frame3	
	Frame4	Frame5

Describe any two types of unguided media on the basis of propagation methods, range and their applications. What is crosstalk? How is it minimized in case of twisted-pair cable?

Q3. Write HTML code snippets to display the following on a webpage:-

H₂O

Principal says, "Please be in Discipline"

~~This is not a valid Example.~~

$(\text{Diagonal})^2 = (\text{Length})^2 + (\text{Width})^2$

A table with 2 rows and 2 columns

What is a footprint of a satellite? Where does signal power is maximum and minimum in footprint? What are the advantages of a multipoint network connection over a point-to-point connection?

- Q4. What is the position of the transmission media in the Open Systems Interconnection Model (OSI) model that describes the functions of a networking system? Is there any alternative model to the OSI model? If yes, define all the layers responsibilities with a clear diagram. Differentiate between these two models.
- Q5. Provide the layers at which repeaters, hubs, bridges, switches, routers, and gateways operate and give a brief description of their functionalities.

Write an HTML program to design the form given below: -

The image shows a login form within a rectangular border. At the top center is the title 'LOGIN FORM'. Below it, on the left, is the label 'USERNAME:' followed by a text input field. Below that, on the left, is the label 'PASSWORD:' followed by a text input field. At the bottom center is a button labeled 'SUBMIT'.

- Q6. Explain the classful addressing scheme related to IPv4 addresses. Which class is used for multicast addresses?

Find the class of the following IP addresses:-

69.89.31.226

172.16.254.1

192.168.1.1

261.58.216.164

Write the network commands for the following operations: -

To test the connectivity between two hosts;

To show several details about the path that a packet takes from the source computer to destination computer.

Write an HTML program to display an ordered grocery list.