

Unique Paper Code : **32345301**  
Code of the Paper : **GE-III (Old Course)**  
Name of the Paper : **Computer Networks and Internet Technologies**  
Name of the Course : **B.Sc. (H)**  
Semester : **Semester - III**  
Duration of Examination : **3 Hours**  
Maximum Marks : **75**

**Instructions for Candidates:**

- i. Attempt any four questions from Question 1 to Question 6.**
- ii. Each Question carries equal marks.**

1. Write a HTML code to create the table below:

<b>Find x using the formula, <math>x = a^2 + b^2 - 4ab</math></b>			Put an Image in this Cell
a	b	x	

Further, suppose that an user “A” from India sends an Email to an user “B” in the United States. Discuss the Email architecture that will be used to deliver the email message to “B”.

2. Write a Javascript code to calculate the parking charges of a vehicle based on the following conditions, given the type of the vehicle and the number of hours:

TYPE OF VEHICLE	CHARGES
Two-Wheeler	Rs. 10 for first hour. Rs 8 for every additional hour
Three-Wheeler	Rs. 20 for first hour. Rs 15 for every additional hour
Four-Wheeler LMV	Rs. 30 for first hour. Rs 20 for every additional hour
Four-Wheeler HMV	Rs. 50 for first hour. Rs 30 for every additional hour

Also, compare the TCP/IP and OSI model.

3. Use CSS to create a home page for a website. Give 3-4 links on this home page which when clicked should display the relevant web pages on the user’s screen. Discuss the various “target” options that can be used to display the webpages.

Further, consider that Mayank is responsible for setting up a computer network in his office. Brief him on the various types of guided media options available by highlighting any two advantages and two disadvantages of each of the options.

4. Ronit wants to send some data to his friends over Internet. Discuss two advantages and two disadvantages of TCP over UDP and vice-versa over the Internet.

Also, write a HTML code to generate the customer feedback form given below:

## Customer Service Survey

Please take a moment to fill out this survey

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**Overall satisfaction of service**

	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied
Friendliness	<input type="radio"/>				
Knowledge	<input type="radio"/>				
Quickness	<input type="radio"/>				

**Would you use our customer service in the future?**

Yes  
 No  
 Maybe

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**How can we improve our service?**

Type here...

5. Write a short note on the Internet Protocol (IP) that works at the network layer of the TCP/IP model. Discuss how packets are routed to the destination network.

Further, discuss the propagation characteristics of ground wave, sky wave and line-of-sight wave.

6. Differentiate between LAN, MAN and WAN. In which category does your college network fall and in which category does the "Internet" belong to?

Also, differentiate between simplex, half duplex and full-duplex mode of data transmission. Compare unicast, multi-cast and broadcast mode of communication.