

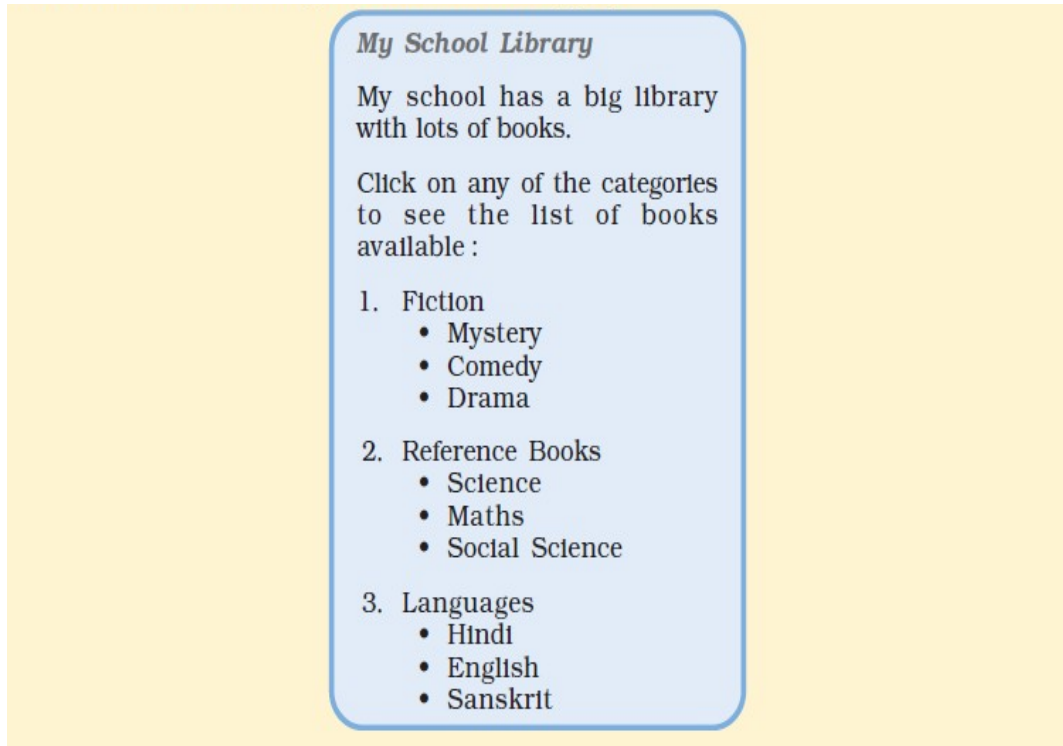
Unique Paper Code : 32345302
Code of the Paper : GE-III
Name of the Paper : Computer Networks
Name of the Course : B.Sc. (H)
Semester : Semester - III
Duration of Examination : 3 Hours
Maximum Marks : 75

Instructions for Candidates:

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

Q.1. Briefly describe the functionality of each layer of the ISO-OSI reference model and draw a labeled diagram that shows the ordering of the layers of this model. Contrast the ISO-OSI model with the TCP/IP model.

Further, Create a web page using **Definition, Unordered, and ordered lists** in HTML as shown below:



Q.2. Describe components of a data communication system with the help of a labeled diagram.

Further, differentiate between Cell Spacing and Cell Padding with syntax in **Table Tag**. Create a table in HTML as shown below:

Name		Course	Year
Last	Init.		
Morgan	A B	Fishing	5
Jones	D J	Sailing	8

Q.3. Briefly discuss TELNET and FTP. Compare and Contrast optical fiber over twisted pair and co-axial cable.

Further, create a form in HTML as shown below:

The image shows a screenshot of an HTML form titled "Tell us what you think". The form contains the following elements:

- Title:** "Tell us what you think" in a large, bold, serif font.
- Input Fields:** Two text input fields labeled "Name" and "Address".
- Question:** "How did you hear about this web site?"
- Radio Buttons:** Three radio button options: "A friend told me", "Via a search engine", and "Followed a link (URL)".
- Rating:** A section titled "How do you rate this site?" with a dropdown menu. The dropdown is open, showing three options: "Good", "Bad", and "Ugly".
- Text Area:** A text area labeled "Please write your comments:" with a vertical scrollbar.
- Buttons:** Two buttons labeled "Yes" and "No" under the heading "Do you want to receive any further information:". Below this, there are two buttons labeled "Send" and "Clear" under the heading "Thank you".

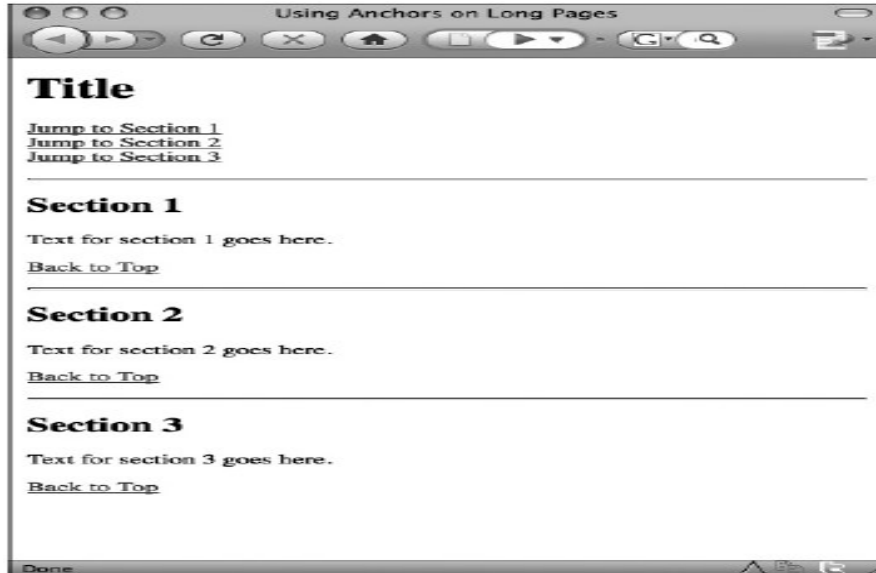
Q.4. Write short notes on:

- Radio Waves
- Microwaves
- Line-of-Sight propagation
- URL
- URI
- URN

Further, explain the concept of external and internal linking in HTML with suitable example codes.

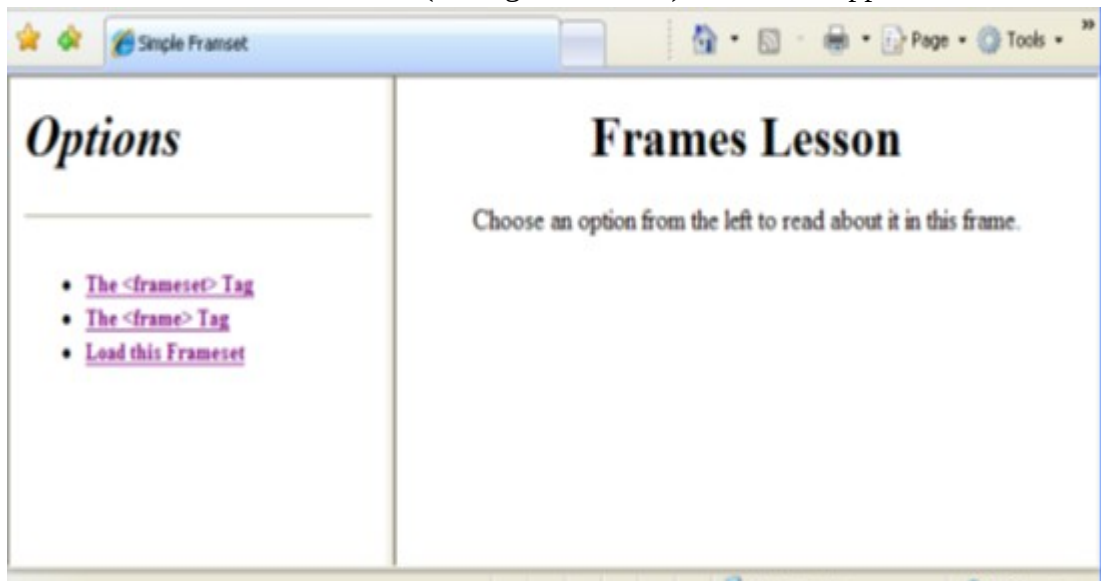
Q.5. Describe LAN, MAN, and WAN.

Also, discuss the different ways to apply a style sheet to an HTML document using examples. Create a web page as shown below with bookmarks in HTML:



Q.6. Provide the layers at which Repeaters, Hubs, Bridges, Switches, Routers, and Gateways operate and give a brief description of their functionalities.

Also, create a HTML document (having two frames) which will appear as follows:



Unique Paper Code : **62344330**
Name of the Course : **B.A. Prog.**
Title of the Paper : **Computer Networks and HTML**
Semester : **III**
Duration of Examination: **3 Hours**
Maximum Marks : **75**
Year of Admission : **2019**

Instructions for Candidates:

- i. Attempt any four out of six questions.**
- ii. Each Question carries equal marks.**

Q1. Why do we divide the task of data communication into different protocol layers? Which layer of TCP/IP reference model does end to end connection and which layer does the routing? Also state, which layer of the TCP/IP model does the error recovery and framing and which layer does bit by bit data transmission. What are the data objects that are exchanged at Transport layer and Application layer?

Q2. If there is no Domain Name System (*DNS*), what problems will you face in accessing a web page? If you reach a web page whose contents do not change, what type of web page will it be? Give an example of a *URL*, identify and describe the purpose of its different parts.

Write an *HTML* program using *lists* to design the following web page:

Means of Transport

1. Land Transport
 - Bus
 - Car
 - Truck
2. Air Transport
 - Helicopter
 - Airbus
3. Water Transport
 - Ship
 - Boat

Q3. During data transmission, what is the technical term associated with the weakening of a signal after travelling some distance, and which device is used to handle this problem? Why do we twist wires in a twisted pair cable, and what is the effect of increasing or decreasing the number of twists in a twisted pair cable? What do you think could be the reasons behind increased use of fiber-optic cables in data transmission?

Write *HTML* code to design the following table:

Column 1	Column 2	Column 3
Cell 1	Two column cell 2	
Two row cell 3	Cell 4	Cell 5
	Cell 5	Cell 6

Q4. Suppose you have a data communication channel where data flows from sender to receiver as well from receiver to sender in parallel, what is this type of data communication channel called? In which type of data communication, there is one sender and the message is received by multiple devices? How do you measure the *reliability* of a communication link? Describe the two main problems, if you do not implement any *security* measures in a computer network. For connecting 40 computer systems in a computer laboratory, which topology do you think would be most useful, and why?

Q5. How does the behaviour of radio waves change as we move from lower to higher frequency? What is the height of the orbit of a geo-stationary satellite? Why is more than one geo-stationary satellite needed for covering the entire globe? In a situation, where you have to transmit in an area covering few hundred square kilometres, which transmission mode among either satellites or fiber-optic cables would be more preferable, and why?

Write *HTML* code to design an *HTML form* of an employee that takes employee code and employee name as input, allows to choose only one option from the three different options with respect to the number of hours worked (like 6, 8 or 10 hours) and allows the employee to select one or more hobbies.

Q6. Which among a *repeater* and a *switch* is a more intelligent device, and why? Elaborate on the utility of video conferencing by using an example. Describe the purpose of a *ping* command by using an example.

Write an *HTML* code to design a web page using *hyperlinks* containing the following topics: chapter 1, chapter 2 and chapter 3. On clicking the name of a topic, the web page should scroll down to display the contents of that topic. There should also be a provision to move back to the list of topics given at the top of the *HTML* page.

Unique Paper Code	:	62343320
Name of the Course	:	B.A. (Prog.) Computer Applications: SEC
Name of the Paper	:	Word Processing and Presentation Softwares
Semester	:	IV
Duration	:	2 Hour
Maximum Marks	:	25
Year of Admission	:	2019

Instructions for Candidates:

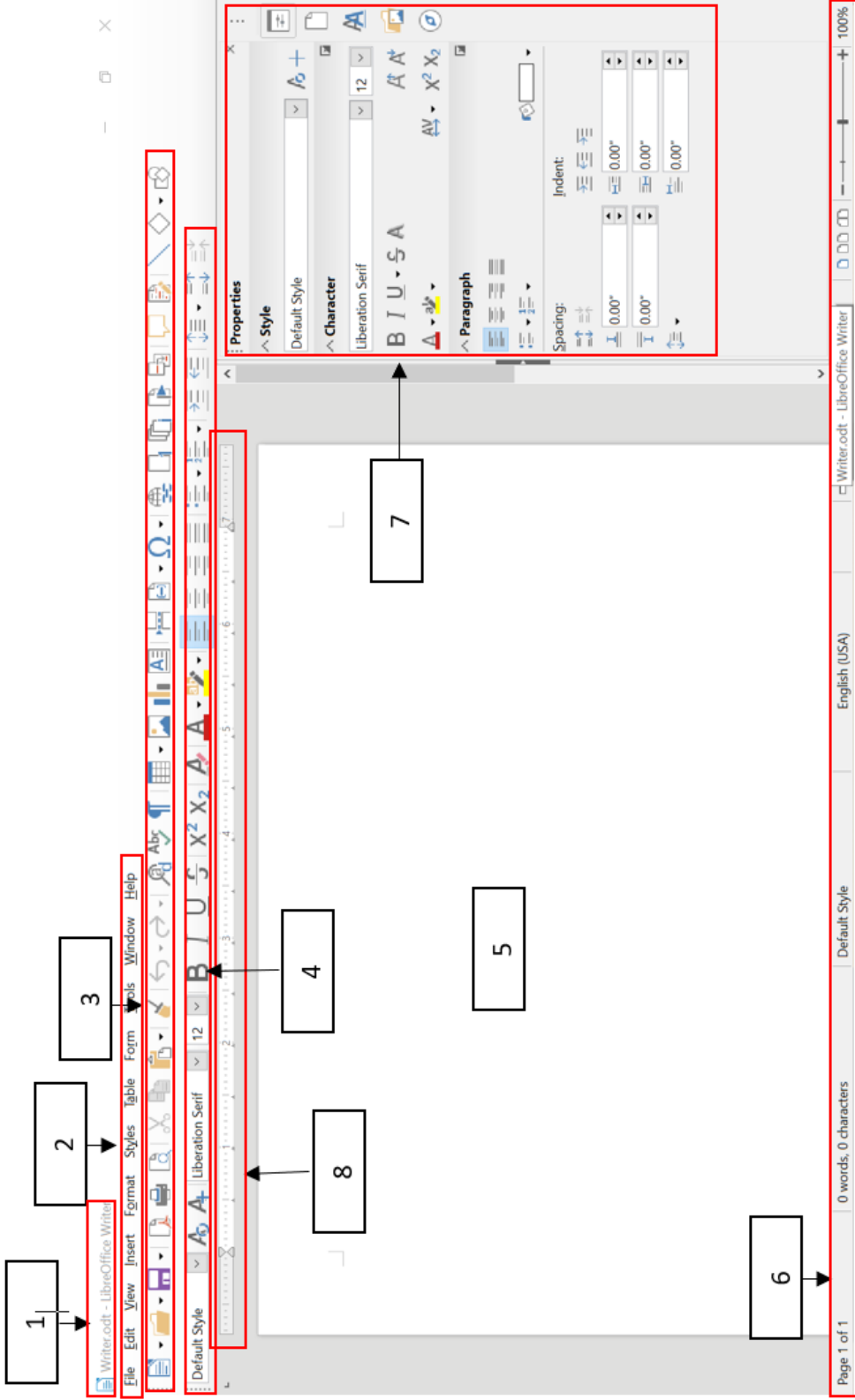
Answer any three questions. All questions carry equal marks.

Q1. Explain three ways in which an image can be inserted in a LibreOffice Writer document. How do you link an image file in writer document? How it is different from embedding an image? List two advantages and one disadvantage of linking an image.

Q2. Suppose you have a presentation of 5 slides. In LibreOffice Impress, list the steps to add a common background to all the slides, hide slide number 2, create a custom slide show having slide number 1 and 4, and restart the slide show automatically after the last slide has been displayed after 5 seconds.

Q3. List four tools which can be used to accept or reject recorded changes in a document. For multiple reviewers, which method is preferred – comparing or merging documents and why? What are the steps to merge a document and compare two documents?

Q4. Given the following Libre Writer screenshot. Identify the parts as numbered in the figure below and briefly explain each one of them.



Unique Paper Code : 62343502
Name of Course : B.A. Programme
Name of the Paper : Open Source Software (SEC)
Semester : V

Duration: 2 Hours

Maximum Marks: **25**

Attempt any *two* questions.
All questions carry equal marks

- Q.1 Suppose you are creating an artistic document, how can you ensure that no other person can copy your contents. Under what law your work can be protected? What are the principles of this law? Also, explain “work for hire” and “fair use” in the context of document protection law.
- Q.2 What are the features of open source software? Under what licensing models open source software is governed? Also explain key features of these licenses.
- Q.3 What is copyleft licensing? Explain with the help of an example. Is copyleft same as open source? Write the differences between copyleft and copyright licenses.