

Punjab Board

SYLLABUS

2024-2025

Syllabus - Computer Science
Session 2024-25
Class 10th

❖ Office Tools

- Introduction, Software and its Types – System and Application Software
- **Different Types of Office Tools:** Word processor Softwares, Spreadsheet Softwares, Presentation Software, Database Systems. Multimedia Tools
- **Online Office Tools:** Common Online Office Tools
- Google Docs -Opening Google Docs, creating a Blank Document using Google Docs, Opening a Microsoft Word Document using Google Docs, downloading document files from Google Docs Collaborating on Documents with Others- Share with people and groups, get link for Viewer, Commenter, Editor; Viewing All the Recent Changes to a Document;
- **Google Sheets-** Opening Google Sheets, creating a Blank spreadsheet using Google Sheets;
- **Google Slides-** Opening Google Slides, creating a Blank presentation using Google Slides;
- Advantages and Disadvantages of Online Office Tools
- Offline Vs Online Office Tools

❖ HTML

- Introduction, HTML, Software Requirements for HTML – Text Editors and Web Browsers
- **Tags and Attributes** - Paired Tags, Unpaired Tags
- Basic Structure of HTML document: HEAD Part, BODY Part; Creating a Web Page with Basic Structure of HTML document, Viewing the Web Page with Basic Structure of HTML document
- **Formatting in HTML:** Bold, Italic, Underline and Strikethrough, Adding Line Break and Horizontal Line, Heading Level (H1 to H6), Making Paragraphs, Superscript and Subscript Text, Working with Fonts (face, size and color attributes), Making Text Size Larger (<BIG>) or Smaller (<SMALL>), Monospaced Font (<TT>), Pre-formatted Text (<PRE>), Center

Alignment (<CENTER>), Marked Formatting (<MARK>), Scrolling Text (<MARQUEE> with Behaviour, Bgcolor, Direction, Height, Loop, Scrollamount, Width attributes, Formatting Body of HTML document (using Background, Bgcolor, Link, Text attributes)

- **Working with Lists:** Unordered List, type attribute of Unordered List; Ordered List, type and start attributes of Ordered List; Definition List; Nesting of Lists
- **Working with Tables:** Using <TABLE>, <TH>, <TD>, <TR>, <CAPTION> tags; Working with attributes of table: Setting Table Height and Width, Setting Table Border and Border Color, Setting Table Backgrounds (Bgcolor, Background attributes), Setting Cell Padding and Cell Spacing, Merging Cells using rowspan and colspan attributes; Changing the Alignment of a Table or Cell Value-Setting Horizontal Alignment (using align attribute), Setting Vertical Alignment (using valign attributes)
- **URLs and Their Types:** Absolute URL, Relative URL-Relative File Path Delimiters
- **Working with Images:** Working with Attributes of <IMG> tag-Setting Alternate Text for the Image, Setting Width and Height of the Image, Setting Image Alignment
- **Working with Hyperlinks:** Different states of links (unvisited, visited, active) Attributes of Anchor Tag: Setting Titles for Links, Setting Target Window; Linking with Images; Link to an Email Address; Named Anchors or Creating Bookmarks
- **Working with Forms:** <FORM> Tag; Action and Method attributes of form; Elements or Controls for the HTML Form-Textbox Control, Text Area Control, Password Field Control, Checkbox Control, Radio button Control, Selection List Control, File Selection Control, Button Control, Submit Button, Reset Button
- **Phases of Web Development:** Information Gathering, Planning, Design & Layout, Development, Testing & Launch, Maintenance

❖ Operating System

- Introduction, Operating System, Services provided by operating System-User Interface, Program execution, I/O operations, File System

manipulation, Communication, Error Detection, Resource Allocation, Protection;

- **Types of Operating Systems:** Batch Operating System, Multi-Programming Operating System, Time-Sharing Operating Systems, Multi-Processing Operating System, Network Operating System, Real Time Operating System, Single-User and Multi-User Operating Systems
- **Computer Security**: CIA Triads-Confidentiality, Integrity, Availability; Computer Security Threats: Malware, Phishing, Rootkit, Key logger; How Do We Secure Our Computer: Latest Anti-Malware software, Password protection, Apply Latest Updates & Patches, Firewall etc.

❖ Desktop Publishing

- **Desktop Publishing:** Definition, Features of Desktop Publishing
- **Desktop –Publishing Software:** Introduction of Microsoft Publisher, Adobe Photoshop, Corel Draw. QuarkXPress, Adobe Dreamweaver, GIMP
- **Word Processing vs. Desktop Publishing:** Similarities between Word Processing and Desktop Publishing, Differences between Word Processing and Desktop Publishing
- **WYSIWYG Feature;** Graphics: 2D Graphics (Raster or Bitmap Graphics, Vector Graphics) 3D Graphics
- Margins, Gutter Margin, Fonts, Frames and Layers
- **Printers:** Impact printers-Dot-Matrix Printers, Daisy-wheel Printers, Line Printers; Non-Impact Printers-Ink-jet printers, Laser printers; Difference between Impact Printer and Non-Impact Printer; Difference between Inkjet Printer and Laser Printer

❖ Microsoft Publisher

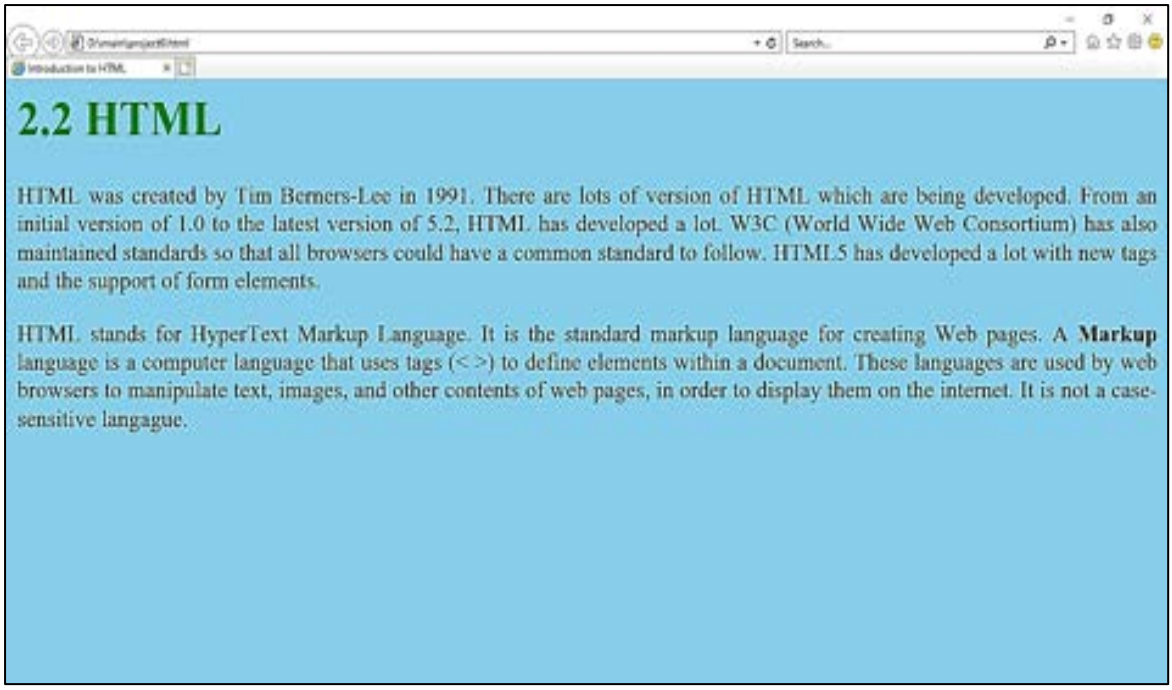
- What is Publisher?, How to start publisher
- **Components of the Publisher Window:** The Quick Access Toolbar, Ribbon and Tabs, File Window,
- **Creating a Publication:** Creating a publication using Blank Layout, Creating a Publication using Templates (Installed Templates, Online Templates, My Templates) Customizing Templates

- **Advertisements:** Brochures-Creating Brochures using MS-Publisher; Newsletters-Creating Newsletters using MS-Publisher, Banners-Creating Banners using MS-Publisher; Business Cards-Creating Business Card in Publisher;
- Award Certificates, Greeting Cards / Invitation Cards / Compliment Cards, Envelops, Letterhead-Creating Letterhead in Publisher, Resumes-Creating Resumes in MS Publisher, Curriculum Vitae (CV); Signs
- Saving Publication, Printing Publication

Some Important Practical Activities

10th Class (Computer Science)

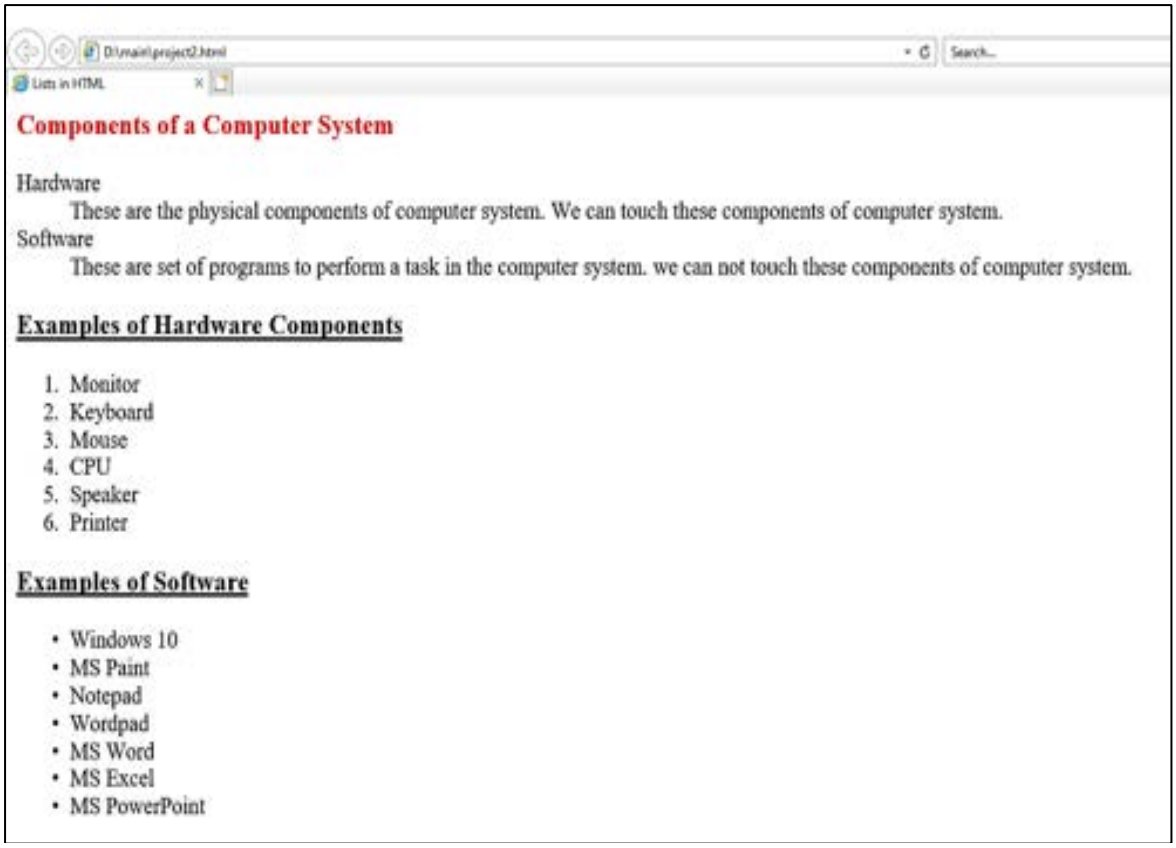
1. **Open Google Docs using Google Chrome web browser and prepare a leave application for urgent Work in it. After preparing the application download it in DOCS and PDF format.**
2. **Open Google Sheets using Google Chrome web browser and prepare the result of 5 students of your class in it. After preparing the result, share the sheet with other students of your class so that they can enter the results of 5 other students in that sheet. Now again open the same sheet on your computer and check the results of students entered by other students.**
3. **Open NOTEPAD++ and create a simple web page using simple HTML structure. Then save it as a webpage with the name MYWEBPAGE and open it in any web browser.**
4. **Create a web page showing an introduction to HTML, as shown in the example below. Set the background color of the body of this web page to skyblue. Save the file as "project0.html" and view the output in a web-browser.**



5. **Create the following webpage using the basic HTML tags that you learned in your syllabus:**



6. **Create a web-page using HTML that displays the output as shown in the web-browser below.**



Components of a Computer System

Hardware

These are the physical components of computer system. We can touch these components of computer system.

Software

These are set of programs to perform a task in the computer system. we can not touch these components of computer system.

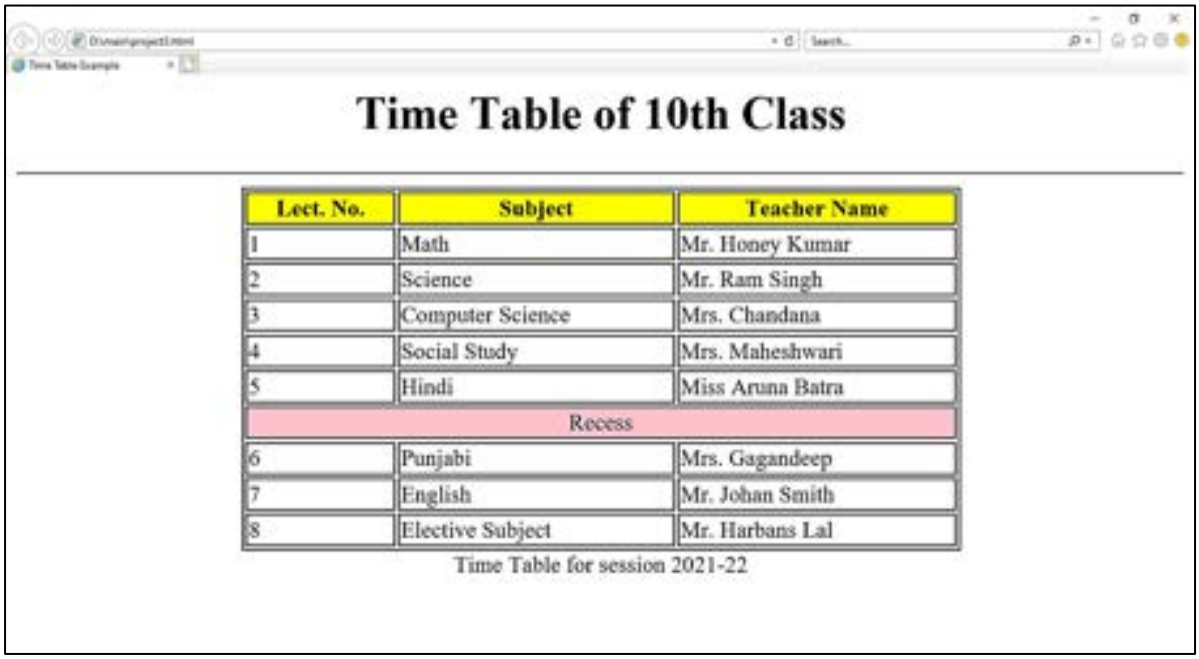
Examples of Hardware Components

1. Monitor
2. Keyboard
3. Mouse
4. CPU
5. Speaker
6. Printer

Examples of Software

- Windows 10
- MS Paint
- Notepad
- Wordpad
- MS Word
- MS Excel
- MS PowerPoint

7. Create time table of your class with the help of table in web page using HTML as shown below:

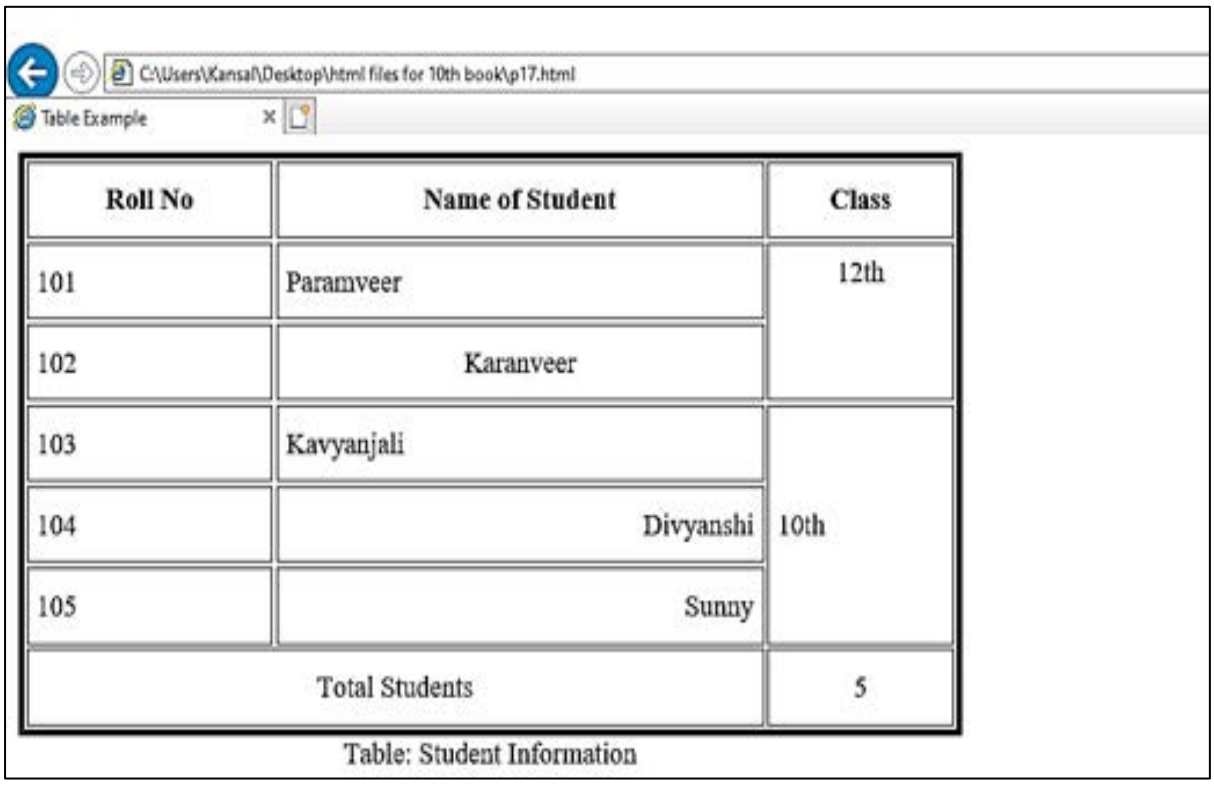


Time Table of 10th Class

Lect. No.	Subject	Teacher Name
1	Math	Mr. Honey Kumar
2	Science	Mr. Ram Singh
3	Computer Science	Mrs. Chandana
4	Social Study	Mrs. Maheshwari
5	Hindi	Miss Aruna Batra
Recess		
6	Punjabi	Mrs. Gagandeep
7	English	Mr. Johan Smith
8	Elective Subject	Mr. Harbans Lal

Time Table for session 2021-22

8. **Create a table in a web page using HTML as per the web page shown below. Use ROWSPAN and COLSPAN attributes to merge table cells and ALIGN and VALIGN attributes to align data in cells**.



Roll No	Name of Student	Class
101	Paramveer	12th
102	Karanveer	
103	Kavyanjali	10th
104	Divyanshi	
105	Sunny	
Total Students		5

Table: Student Information

9. **Create your school web page as shown in the figure below and save it as "myschool.html". Show the scrolling text using the MARQUEE tag and download any image from the internet depicting the school building that you can use in your webpage.**



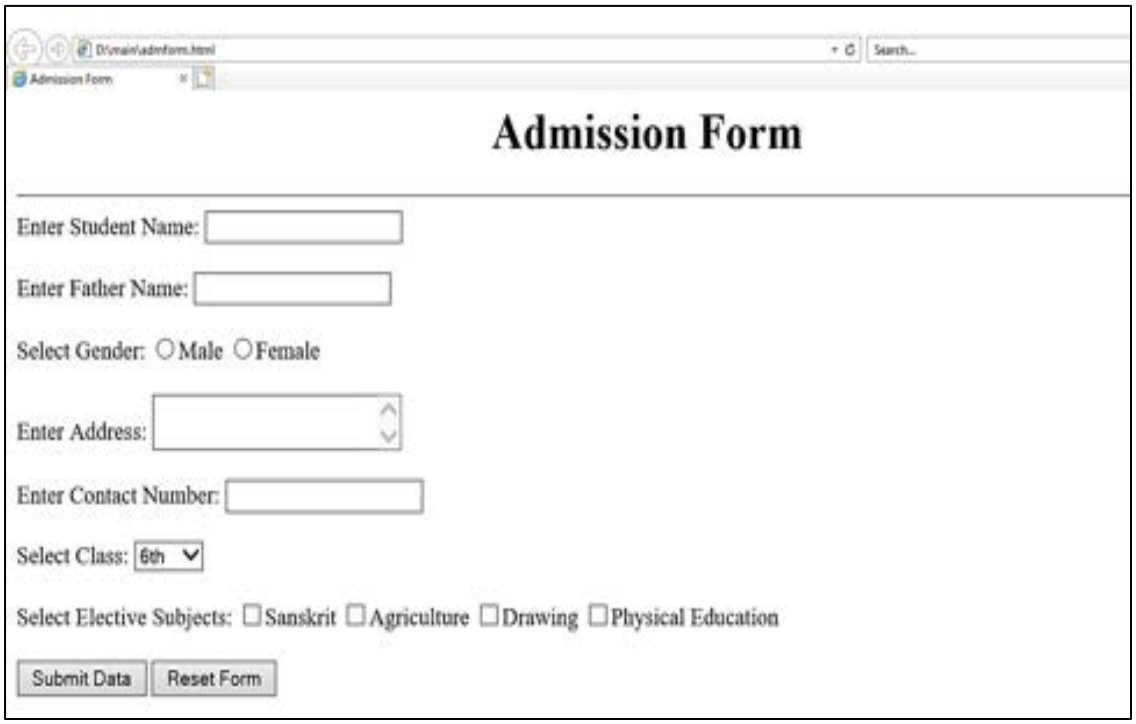
10. Create a web page that displays some useful links of local and global resources, as shown below:



Generate links as below:

- **Link "My School" to the local web page that we created in Activity 9 (“./myschool.html”).**
- **Link "Punjab School Education Board" to its official website “http://www.pseb.ac.in/”.**
- **Link "ePunjabSchool" to its official website “https://www.epunjabschool.gov.in/”.**
- **Link "Ashirwad Portal for Scholarships" to its official website “http://scholarships.punjab.gov.in/”.**

11. Create an "Entry Form" using HTML-Form as shown below. This form uses the controls used in HTML forms like Textboxes, Textareas, Selection Lists, Checkboxes and Buttons etc.

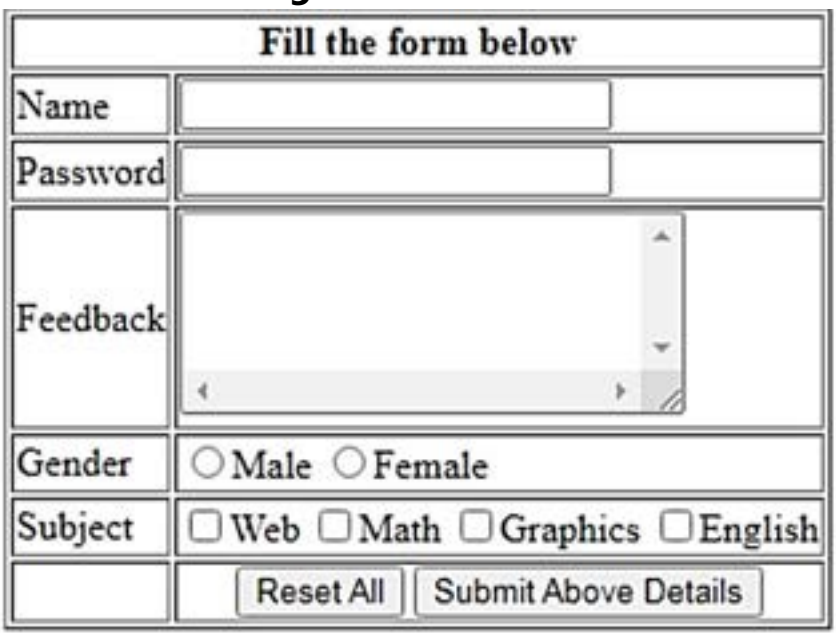


12. Generate the web page using HTML as shown below. You can download images from the internet and use them in the table accordingly and create hyperlinks to the respective websites in the "Favourite Websites" column.

Student Records

S. No.	Image	First Name	Last Name	Class	Favourite Website
1		Mohan Lal	Sharma	10th	Google
2		Kavya	Kumari	10th	YouTube
3		Karanveer	Singh	10th	PSEB

13. **Create a web-form using tables in HTML as shown below**



14. **Create an advertising publication for your school with the help of templates in MS Publisher.**
15. **Prepare Business Cards and Award Certificates for yourself in the MS Publisher.**

Charts/Models

- **Prepare charts/models illustrating different Types of Software.**
- **Create charts/models showing the functions of various Tags and Attributes related to Tables in HTML.**
- **Prepare charts/models related to different Types of Operating Systems.**
- **Create a chart/model showing the difference between Raster (Bitmap) Graphics and Vector Graphics.**
- **Create a chart/model showing the Different Components of the MS Publisher Window.**

Study Materials

aglasem.com

Model Papers

Sample Papers

Half Yearly Sample Papers

Important Resources

Periodic Table

Writing Skills / Formats

Maps of India / World

Notes

- [ ] Class 6 Notes
- [ ] Class 7 Notes
- [ ] Class 8 Notes
- [ ] Class 9 Notes
- [ ] Class 10 Notes
- [ ] Class 11 Notes
- [ ] Class 12 Notes

Books and Solutions

NCERT Books

NCERT Book Solutions

HC Verma Chapter Wise Solutions

RD Sharma Solutions

CGBSE Solutions