CBSE BOARD EXAMINATION – 2024
COMPUTER APPLICATIONS
Solved Paper
Class– 10th

Maximum Marks: 80   *Time allowed: 3 hours*

GENERAL INSTRUCTIONS:

Please read the instructions carefully.

1. *This question paper has 5 Sections: Sections A, B , C, D, E.*
2. *All questions are compulsory. However, an internal choice of approximately 30% is provided*
3. *Section A has 12 questions carrying 1 mark each*
4. *Section B has 7 Very Short Answer (VSA) type questions carrying 2 marks each.*
5. *Section C has 4 Short Answer (SA) type questions carrying 3 marks each.*
6. *Section D has long Answer (LA) type question carrying 4 marks.*
7. *Section E has 2 Source-based/Case-based/ Passage based questions carrying 4 marks each.*

SECTION– A   12 × 1 = 12

1. The letter S in the abbreviation HTTPS in context of Networking protocols, stands for:

    (A) Single   (B) Static

    (C) Secure   (D) Sensitive

2. Which of the following is **not** a Web Service?

    (A) Using Diksha learning portal

    (B) Sending and receiving email

    (C) File transfer over Bluetooth

    (D) Using a banking portal for online transaction

3. In 3G and 4G mobile technologies, the character 'G' stands for:

    (A) Generation   (B) GPRS

    (C) Grid   (D) Google

4. A website or online platform where individuals or groups regularly publish written content, typically in a reverse chronological order is known as:

    (A) News Group   (B) Blog

    (C) Chat Group   (D) Social Networking

5. Which of the following is **not** an attribute of the <font> tag?

    (A) face   (B) height

    (C) size   (D) color

6. In HTML, we start a comment using:

    (A) <!--   (B) !-->

    (C) --!>   (D) <--!

7. Which of the following elements have both the opening and the closing tags in HTML?

    (A)
                                    (B) <h1>

    (C) <hr>   (D) <img>

8. The default color of **vlink** is _____.

    (A) Green   (B) Purple

    (C) Blue   (D) Yellow

9. Which of the following tags is **not** used while creating a description list?

(A) <dt>

(B) <dl>

(C) <td>

(D) <dd>

10. Which of the following is **not** an example of an Open Source Software?

(A) Linux

(B) Android

(C) Photoshop

(D) OpenOffice

Questions No.11 and 12 are Assertion and Reason type questions. Each question consists of two statements, namely, Assertion (A) and Reason (R). Select the most suitable option considering the Assertion and Reason.

11. Assertion (A): When you enter a query into a search engine, it retrieves and presents a list of web pages, documents, images, videos, or other types of content that are relevant to your search.

Reason (R): The goal of information retrieval is to effectively and efficiently find and present information that matches the user's search criteria.

(A) Both Assertion and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

(B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

12. Assertion (A): It becomes difficult to update and maintain a website's design using CSS.

Reason (R): CSS allows web developers to separate the presentation layer (styles and layout) from the content layer (HTML).

(A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

(B) Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct explanation of Assertion (A).

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

SECTION– B   7 × 2 = 14

13. Write any two points comparison between Chat and Email in context of web services.

14. (a) Write in brief about any two advantages of e-Banking.

OR

(b) Write in brief one advantage and one limitation of e-Reservation.

15. Write any one point of difference between a webpage and a website.

16. (a) Explain in brief about any two factors that are responsible for the Digital Divide.

OR

(b) What are software licenses ? Give one example each of a free software license and a proprietary software.

17. Write any two significances of using links in an HTML webpage.

18. (a) Match the tag with their corresponding correct attribute.

Tag	Attribute
<table>	start
<input>	rowspan
	type
<td>	border

OR

(b) Differentiate between bgcolor and background attributes of **<body>** tag. Write one HTML statement explaining the use of each attribute.

19. Write suitable html statements to display the following text on a webpage in appropriate subscript and superscript form:

(a) H_2O

(b) $E=MC^2$

SECTION– C   **4 × 3 = 12**

20. A school wants to create a webpage for the announcement of orientation programme of its Cultural Club as shown below :

> # ABC International School
>
> ## Cultural Club
>
> Orientation programme on 15th March 2024

The school wants all the 3 lines to appear as Headings and Subheadings:

- The first line containing its name to have the boldest possible appearance as a heading in Blue color.
- The second line containing the Club name should appear as a heading but its size should be smaller than the first line in green color.
- The third line containing the Programme details should appear as a heading and its size should be smaller than the previous two lines in Cyan color.

  Suggest the html code to get the desired appearance of the lines in the webpage.

21. Ayesha has shot some videos. She wants to create a webpage so as to share her creations with her followers across the world. Help Ayesha to embed her video file in the web page with the following: specifications:

- The name of video file is Ayeshahits.mp4.
- The video should play in a window of width 350 pixels and height 250 pixels.
- The video controls such as Play, Pause and Volume should be visible.

22. **(a)** Online Gadgets is an electronic products company. The company wishes to sell its products online for which they want to launch its website. The homepage of the website should contain the images of its products which are saved as PHONE.JPG and TV.JPG. The company wishes to open the webpage named ALLPHONES.HTML when the image PHONE.JPG is clicked. Similarly, on clicking the image TV.JPG a different webpage named as ALLTVS.HTML should open. Ensure that both the images should get displayed with a width of 200 pixels and a height of 150 pixels.

Write the code to achieve the desired result.

Note: Assume that the image and both the webpages are stored in the same folder.

OR

(b) Write the HTML code to design the content of the webpage in the form of lists as shown below:

> Here is a shopping list with categories and items:
> 1. Vegetables
>   ◦ Carrots
>   ◦ Broccoli
>   ◦ Spinach
> 2. Fruits
>   ◦ Apples
>   ◦ Oranges
>   ◦ Bananas

23. Explain the term "Plagiarism". Write in brief any two examples to illustrate acts of Plagiarism.

SECTION– D   **1 × 4 = 4**

24. **(a)** Write the HTML code to design a Student's Data input form as shown below:

Student Data Input Form

Name: ☐

Subscribe for Newsletter: ☐

Gender:

Male ○ Female ○ Other ○

Country

USA ∨

The following input elements should be included in the form:

• A textbox to enter student's name.

• A checkbox to allow the student to subscribe to a newsletter.

• Radio buttons to select the gender. The buttons should be grouped with individual values as Male, Female, Other.

• A list box (select dropdown) to choose the country. The available options are USA, Canada, UK and Australia.

OR

(b) Observe the screenshot of the following content in a webpage and write the HTML code to generate the desired output.

	ACTIVITY	MEMBER NAME	AGE	Email
DETAILS	Chess Club	John Doe	28	john.doe@example.com
	Photography Club	Jane Smith	24	jane.smith@example.com
	Football Club	Michael Johnson	31	michael.johnson@example.com

Note: The table border size should be 1.

SECTION– E
Case-Study
$2 \times 4 = 8$

25. Suraj is a novice in digital communication. He has recently joined a where most communications multiple occasions Suraj faces problems while working over the Internet. Help him by answering the following questions:

(a) Suraj is asked to send an email to his supervisor. He types in the content and provides the email address of the recipient as www.gmail.com. How is the address typed by Suraj different from the email address of the recipient ?

(b) Suraj has been asked to create a video conferencing link and share the link with all co-workers who are working from home. Suggest any two softwares which he can use for the purpose.

(c) Suraj has been asked to upload a file containing transaction details and send it to his colleagues in the office. Which Internet protocol will be used by him and by his colleagues in the office to upload and download the file over the Internet ? Write the abbreviation as well as the full form of the protocol to be used.

(d) Suraj has been asked to use a social networking site to promote sales of the company's products. Suggest him two commonly used social networking sites where he can post about the products and promote the company's sales.

26. Raghu is a painter and blogger. He regularly updates his paintings on his blog. Recently, he saw one of his paintings being used in a presentation by his friend, Nityananda, without acknowledging Raghu as the creator.

(a) What crime (if any) has been committed by Nityananda?

(b) Raghu appraised Nityananda about IPR and its associated violations. Expand the term IPR.

(c) Raghu wants to use e-Commerce to sell his paintings online. Write any two precautions that he should take while using e-Commerce.

(d) Mention any two netiquettes which Raghu should follow while being online.

■■

ANSWERS

SECTION– A 12 × 1 = 12

1. **Option (c) is correct.**

   Explanation: The "S" in "HTTPS" stands for secure, and simply requires some method of securing connections between two endpoints, like a browser and a website.

2. **Option (c) is correct.**

   Explanation: Web services are the type of internet software which use standard protocols to integrate with various applications. Hence, Sending file over Bluetooth is not a web service. All the others require some form of Internet and web service.

3. **Option (a) is correct.**

   Explanation : 2G, 3G, 4G are all generations of mobile technologies which evolved with increasing data transmission and several features.

4. **Option (b) is correct.**

   Explanation : A blog, or Weblog, is a Web site where entries are made in journal style and displayed in a reverse chronological order. Typically, blogs are commentary or news on a particular subject.

5. **Option (b) is correct.**

   Explanation : The Font tag has attributes – face , color and size.

6. **Option (a) is correct.**

   Explanation : Comments in HTML start with <!-- and end with -->.

7. **Option (b) is correct.**

   Explanation : The heading tag <h1> has both an opening and closing.

8. **Option (b) is correct.**

   Explanation : The default color of visited link in HTML is purple.

9. **Option (c) is correct.**

   Explanation : The <td> tag is used with <table> tag for writing data in the columns of a table.

10. **Option (c) is correct.**

    Explanation : Adobe Photoshop is an image editing , proprietary software.

11. **Option (a) is correct.**

    Explanation : Search engine is mainly used to search the details by the user. Search engine will provide the best and relevant results to the user in the form of Webpage, Image, Video, etc. This process is called as Information Retrieval.

12. **Option (d) is correct.**

    Explanation : CSS can help in well maintenance of a web page's design. It also separates the styles from the content.

SECTION– B 7 × 2 = 14

13. Differences between Chat and Email.

	Chat	Email
1.	The sender and receiver need to be online at the same time.	The receiver may not be online and can open the mailbox later to view mails.
2.	The chat is real-time communication. The chat can be done using various methods like Facebook, Instagram, and WhatsApp. Many other apps also provide feature of chat.	Email is the communication that is mostly used in communication at the professional level. The email is introduced by the Google.

14. **Advantages of e-Banking**

    e-Banking offers a lot of facilities to its customers . Some of them are :

    (a) Anytime banking 24 × 7

    (b) Saves time and energy as customers do not have to wait in long queues.

    Or

    e-Reservation

    Advantage : 24 × 7 accessibility to the services

    Disadvantage : You need internet access. Reliable internet access is required to check reservations and add bookings that are made over the phone.

15. Differences between Web Page and Web Site

Web page	Website
A webpage is defined as a component of a website that includes contents like text, media, etc. It also comprises links to many other relevant webpages.	A website is a cluster of different webpages of different topics addressed to certain URLs.
It is a single document that is displayed by the web browser using a specific URL address.	It is a collection of many documents. Web browsers are used to access such documents using specific URL addresses attached to the website.

16. Factors that affect **Digital divide :**

    (i) **Socioeconomic Factors:** Individuals or communities with higher income levels tend to have better access to computers, smartphones, high-speed internet, and other digital tools compared to those with lower income levels.

(ii) Geographical Factors: Geographical location can also contribute to disparities in digital access. Rural areas, in particular, often face challenges in terms of infrastructure development, including limited availability of broadband internet services and inadequate network coverage.

Or

- A software license is a document that provides legally binding guidelines for the use and distribution of software.
- **Free software License :** GNU General Public License e.g : Linux
- **Proprietary License :** Microsoft Windows: Developed by Microsoft

17 Significance of links in an HTML page:

(a) Links help in switching or moving to other pages. They also help in navigating between the pages of a website, that is going forward and coming back or to the Home page.

(b) Links also help to link an HTML page to external stylesheets.

18. <table> → border

<input> → type

 → start

<td> → rowspan

Or

Bgcolor	Background
.bgcolor is an attribute used in the HTML document	background-color is a CSS property, used inside a declarations block within a CSS rule.
.The bgcolor attribute is used for coloring the background of the document	background attribute specifies a background image for a document.

```
<Body bgcolor="Green" background="img1.jpg">
```

```
<body style ="background-color : powderblue;:>
```

19. (a) H_2O → H₂O → H$_2$O

(b) $E=MC^2$ → E=MC^2

SECTION– C   4 × 3 = 12

20.
```
<html>
<head>
<title> ABC International School </title>
</head>
<body><center>
<B> <H1> <Font color="Blue"> ABC International School </Font></H1></B><br>
<H2><Font color="Green"> Cultural Club></Font></H2>
```

```
<H3> <Font color="Cyan"> Orientation programme on 15 <sup>th</sup> March , 2024</Font></H3>
</center>
</body>
</html>
```

21.
```
<video width="350" height="250 " controls>
<source src="Ayeshahits.mp4" type = "video/mp4">
Your browser does not support the video tag.
</video>
```

22.
```
<html>
<head>
<title> Online Gadgets </title>
</head>
<body><center>
<a href="Allphones.html">
<img src="Phone.jpg" width="200" height = "150"></a>
<a href="Alltvs.html">
<img src="tv.jpg" width="200" height = "150"> </a>
</center>
</body>
</html>
```

Or

```
<html>
<head>
<title> Food Items </title>
</head>
<body>
Here is a shopping list with categories and items:
<OL type = "1">
<LI> Vegetables</LI>
<UL Type="Circle">
<LI>Carrots</LI>
<LI>Broccoli</LI>
<LI>Spinach</LI>
</UL>
<LI>Fruits</LI>
<UL Type="Circle">
<LI>Apples</LI>
<LI>Oranges</LI>
<LI>Bananas</LI>
</UL>
</OL>
</body>
</html>
```

23. Plagiarism : The illegal act of calling and publishing the intellectual property of others as one's own is called as Plagiarism.

Plagiarism is a type of intellectual theft. Plagiarism can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement.

Plagiarism means using someone else's work without giving them proper credit. In academic writing, plagiarizing involves using words, ideas, or information from a source without citing it correctly.

Example :

(a) Stealing book of others and publishing them in own name

(b) Stealing design or formula and publishing them after slight modifications.

SECTION– D　　1 × 4 = 4

24

(a)
```
<html>
<head>
<title> Student Data </title>
</head>
<body>
<center> <Font size=7> <b> Student Data
Input Form </b> </Font> </center>
<Form name = "stdform">
Name : <input type="text" name="stdname">
<br>
Subscribe for Newsletter :<input type =
"checkbox" name="chkn"><br>
Gender : Male <input type="radio" name =
"gen" value="Male">
Female <input type="radio" name="gen"
value = "Female">
Other <input type="radio" name="gen"
value = "Other"><br>
Country <select name="cntry">
<option>USA</option>
<option>Canada</option>
<option>UK</option>
<option>Australia</option>
</select>
</form>
</body>
</html>
```

OR

(b)
```
<html>
<head>
<title> Activity Page </title>
</head>
<body>
<table border=1>
<tr>
<td rowspan="4">
Details
</td>
<td>
Activity
</td>
<td>
Member Name
</td>
<td>Age</td>
<td>Email</td>
</tr>
<tr>
<td>
Chess club
</td>
<td>
John Doe
</td>
<td>28</td>
<td>john.doe@example.com</td>
</tr>
<tr>
<td>
Photography club
</td>
<td>
Jane Smith
</td>
<td>24</td>
<td>jane.smith@example.com</td>
</tr>
<tr>
<td>
Football club
</td>
<td>
Michael Johnson
</td>
<td>31</td>
<td>michael.johnson@example.com</td>
</tr>
</table>
</body>
</html>
```

SECTION– E

Case-Study 2 × 4 = 8

25. (a) An Email address is of the form <username>@ domain name.domain type. e.g john@gmail.com. Whereas the address types by suraj is the address of an URL – www.gmail.com.

(b) The softwares they can use are :
(a) google meet
(b) zoom meetings

(c) They can use the File transfer protocol FTP

(d) Some social networking sites where he can promote are :

(a) www.facebook.com
(b) www.instagram.com
(c) twitter.com

26. (a) It is an act of Plagiarism .

(b) IPR : Intellectual Property Rights

(c) Two precautions:
(i) Keep the account details safe.
(ii) Do not Post the banking details completely.
(iii) Use web sites with https and proper digital certificate rather than http

(d) (i) Be respectful to other **(ii)** Do not ask age, gender , salary etc.

■■