



## Computer Applications (Code 165)

### Sample Question Paper (Term 2) Class X (Session 2021-2022)

Maximum Marks: 25

Time Allowed: 02 Hours

#### General Instructions:

1. The Question Paper contains three sections A, B and C. Each section is compulsory.
2. Section A has 4 questions of short answer type. Each question is of 2 marks. Internal choice is provided in 1 question.
3. Section B has 3 questions of Long Answer Type-I (LA-I). Each question is of 3 marks. Internal choice is provided in 1 question.
4. Section C has 2 questions of Long Answer Type-II (LA-II). Each question is of 4 marks.

Q NO.	SECTION-A (TOTAL 8 MARKS) THIS SECTION HAS 4 QUESTIONS OF SHORT ANSWER TYPE. EACH QUESTION IS OF 2 MARKS. INTERNAL CHOICE IS PROVIDED IN 1 QUESTION	MARKS
1	<b>Define URL and list its components.</b>	2
Ans.	The information resources on the Internet are identified by Uniform Resource Locator (URL), which is a unique address of each Web page. The four components of a URL are protocol, subdomain, domain name and domain extension.	
2	<b>Define video conferencing and e-mailing.</b>	2
Ans.	Video conferencing is the use of audio and video telecommunication technologies to connect two or more users located in different parts of the world, for exchanging information through a virtual meeting over the Internet. E-mailing is a method through which digital messages are exchanged on the Internet or other computer networks. OR	
	<b>List two advantages of using a broadband connection.</b>	
Ans.	The following are some advantages of using a broadband connection: <ul style="list-style-type: none"><li>● It is faster than a dial-up connection.</li><li>● It provides continuous connection to the Internet.</li></ul>	

3	<b>What is the functionality of the MAILTO link in HTML?</b>	2
Ans.	The MAILTO link in HTML is used to transmit e-mail messages over the Internet. The MAILTO link refers to an HTML link that is used to activate the mail client installed on the computer system to send e-mails. This link is used with the HREF attribute of the <A> tag. As a value for the link, we need to specify an e-mail address. However, some other parameters including subject, cc, bcc and body text, can also be added to the e-mail message.	
4	<b>Explain the difference between internal linking and external linking in HTML.</b>	2
Ans.	In HTML, external linking refers to the type of link which, on clicking, opens a document or Web page (to which the hyperlink is linked) in a new window. On the other hand, internal linking allows us to link different sections of the same Web page.	

<b>SECTION-B (TOTAL 9 MARKS)</b>		<b>MARKS</b>
<b>THIS SECTION HAS 3 QUESTIONS OF LONG ANSWER TYPE-I (LA-I). EACH QUESTION IS OF 3 MARKS. INTERNAL CHOICE IS PROVIDED IN 1 QUESTION.</b>		

5	<b>Describe three elements of a search engine.</b>	3
Ans.	Three elements of a search engine are as follows: <ul style="list-style-type: none"> <li>● <b>Spiders or Web crawlers:</b> It is the software that browses the Internet in a systematic manner. They are also known by various other terms such as ants, bots, automatic indexers, Web spiders and Web robots.</li> <li>● <b>Indexing software:</b> It is the software that receives the list of Web documents and Web addresses collected by the Web crawler. The indexing software extracts the information from the Web documents and Web addresses and then prepares the index of the available information. Finally, it stores the data in the database.</li> <li>● <b>Search algorithm:</b> It refers to the mechanism of searching the keywords in the database of a search engine. If the searched keyword is found in the database, the Web documents and Web addresses related to the keyword are displayed to the user.</li> </ul>	
6	<b>Define the following terms:</b> <ul style="list-style-type: none"> <li>● Web portal</li> <li>● Web browser</li> <li>● WWW</li> </ul>	3
Ans.	The above terms are described as follows: <ul style="list-style-type: none"> <li>● <b>Web portal:</b> It is a website that presents information from several sources. It also contains hyperlinks to many other websites. When you click any of these hyperlinks, you are redirected to the respective Web page. An example of a Web portal is www.yahoo.com.</li> <li>● <b>Web browser:</b> A Web browser is an application that is used to access or retrieve information or resources from the Internet. This information is available in different formats, such as audio and video files, text and images.</li> </ul>	

	<ul style="list-style-type: none"> <li>● <b>WWW:</b> It stands for World Wide Web. It consists of standards, and protocols that help you to create and display multimedia files (documents that contain a combination of text, graphics, images, videos and audio) on the Internet.</li> </ul>	
7	<b>Define e-learning with suitable example. Explain any two advantages of e-learning.</b>	3
Ans.	<p>E-learning refers to the electronic mode of delivering learning, training, or educational programs to users. In this mode of learning, knowledge or skills are transferred with the help of the computer connected to a network (Intranet or the Internet). Examples of e-learning applications comprise different forms of learning like Web-based and computer-based learning and virtual classrooms. As compared to the traditional classroom learning, e-learning provides the following advantages:</p> <ul style="list-style-type: none"> <li>● <b>Cost effective:</b> Eliminates the expense and time incurred in travelling by both the instructor and the learner to be at one location. Instead, they can both be at different locations and still interact with each other to discuss important topics of study. In addition, e-learning eliminates the need of stationery and books, as learning is provided through audio–visual aids and other material available online.</li> <li>● <b>Faster learning:</b> Provides quicker learning as compared to the traditional classroom learning. This is because e-learning adopts the individualized approach, which allows the learners to pace their study according to their comfort and convenience and only study the material that they want to learn while ignoring what they already know.</li> </ul> <p style="text-align: center;">OR</p>	
	<b>“Mobile ticketing (M-ticketing) is a technology whereby customers obtain tickets on their cell phones in the form of a text message.” Mention the uses, advantages and disadvantages of M-ticketing.</b>	
Ans.	<p>Mobile ticketing can be used for booking tickets for flights, buses, or trains and for cinemas, concerts, events, or live shows. Mobile ticketing offers several advantages. Some of them are described as follows:</p> <ul style="list-style-type: none"> <li>● <b>Better Customers' Convenience:</b> By using mobile ticketing, customers can avoid waiting unnecessarily in long queues. Moreover, it allows customers to make payments with their credit/debit cards. With mobile ticketing, customers can buy tickets within seconds, anywhere and at any time.</li> <li>● <b>Reduced Ticket Printing/Mailing Costs:</b> M-tickets are considered as legal tickets, and hence, there is no need of printing a ticket. This reduces the cost of paperwork. Moreover, m-tickets are also cost effective as they reduce distribution costs associated with traditional paper-based ticketing networks.</li> <li>● <b>Enhanced Revenue Opportunity:</b> M-tickets have tremendously increased the accessibility of tickets to a larger customer base, which in return, increases the revenue of businesses.</li> </ul>	

	<p>Besides advantages, Mobile ticketing has various disadvantages. Some of them are described as follows:</p> <ul style="list-style-type: none"> <li>● <b>Forgery:</b> M-tickets can be easily forged. There are many apps to create fake snapshots of m-tickets and take the benefit of related services.</li> <li>● <b>Blocked SMS:</b> Many phones do not allow payment-related text messages. Due to this, users do not receive the messages related to any payment.</li> <li>● <b>Not Reliable:</b> You cannot access your m-ticket in case your phone is not connected to the Internet or is running on low battery.</li> </ul>	
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SECTION-C (TOTAL 8 MARKS)		MARKS
THIS SECTION HAS 2 QUESTIONS OF LONG ANSWER TYPE-II (LA-II). EACH QUESTION IS OF 4 MARKS. QUESTION-9 IS OF CASE-BASED TYPE.		
<b>8</b>	<p><b>Read the case study given below and attempt any 4 sub-questions (out of 5). Each sub-question carries 1 mark.</b></p> <p>Priya is a project manager, works in an IT firm and but due to rise in Covid-19 pandemic has been asked to work from home for sometime. She has set up her office at her home by using accessories that might be required to perform her work online efficiently.</p>	
<b>(i)</b>	A company's client wants to hold an online meeting with Priya to share feedback of a project with her. Which type of service should she use to hold the meeting?	<b>1</b>
<b>Ans.</b>	Priya can use videoconferencing tool such as Zoom, Microsoft Teams, Google meet etc.	
<b>(ii)</b>	Priya sends an email to his team members in which she asks them to submit their work done each day. Which network protocol is involved during this email communication?	<b>1</b>
<b>Ans.</b>	The protocols used for such email communication are SMTP(Simple Mail Transfer Protocol) and POP(Post Office Protocol).	
<b>(iii)</b>	Priya wants to share some financial documents related to a project with the company's head. Which protocol is generally used to share highly confidential information?	<b>1</b>
<b>Ans.</b>	Secure Sockets Layer (SSL) is a protocol that establishes an encrypted link between a Web server and a browser to ensure the security of the information that is exchanged between the two.	
<b>(iv)</b>	Priya wants to upgrade his skills in the field of data security. She wants to read and download some articles from authentic websites. What should she use to locate the websites online?	<b>1</b>
<b>Ans.</b>	Priya can use search engine such as Google, Bing etc. which searches the information on the Internet according to the specified criterion.	
<b>(v)</b>	Priya is not able to send the documents using the mail attachment so she shared the link of those documents by uploading them on the server using third party service. She shared link of the documents to his team member, John, so that he can refer those documents while working. What should John do get the documents?	<b>1</b>
<b>Ans.</b>	John must click the links to download the documents on his computer system.	

9

Write the HTML code to design the web page as shown below, considering the specifications as given below. Students can write code for any 4 specifications out of the given 5 specifications.

4

Main Subjects	Branches
Maths	Algebra
	Geometry
Chemistry	Organic
	Inorganic
Physics	Mechanics
	Electricity
	Optics

Specification-1: Set the border to 4 and the border colour of the table to yellow.

Specification-2: Set the height and width of the table 50% and 60%, respectively.

Specification-3: Align the table in the center of the web page.

Specification-4: Set the background colour of the table heads to sky blue.

Specification-5: Set the title of the web page to Subjects and their Branches.

Ans .

The HTML code is as follows:

```
<HTML>
<HEAD>
<TITLE>
Subjects and their Branches
</TITLE>
</HEAD>
<BODY>
<TABLE BORDER="4" BORDERCOLOR="yellow" BG-
COLOR="pink" ALIGN="center" HEIGHT="50%"
WIDTH="60%">
<THEAD BGCOLOR="skyblue">
<TR>
<TH>Main Subjects</TH>
<TH>Branches</TH>
</TR>
</THEAD>
<TR>
<TD ROWSPAN="2">Maths</TD>
<TD>Algebra</TD>
</TR>
<TR>
<TD>Geometry</TD>
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</TR>
<TR>
<TD ROWSPAN="2">Chemistry</TD>
<TD>Organic</TD>
</TR>
<TR>
<TD>Inorganic</TD>
</TR>
<TR>
<TD ROWSPAN="3">Physics</TD>
<TD>Mechanics</TD>
</TR>
<TR>
<TD>Electricity</TD>
</TR>
<TR>
<TD>Optics</TD>
</TR>
</TABLE>
</BODY>
</HTML>
```