

**Class: X Session: 2020-21**  
**Computer Applications (Code 165)**  
**Sample Question Paper (Theory)**

**Maximum Marks: 50**

**Time Allowed: 2 hours**

**General Instructions:**

1. This question paper contains two parts A and B. Each part is compulsory.
2. Part A carries 20 marks while part B carries 30 marks.
3. Part-A consists very short answer and case based MCQ Questions and Part-B is Descriptive Paper.
4. Both Part A and Part B have choices.

**Part – A:**

1. It consists two sections- I and II.
2. Section I has 13 questions of very short answer type. An examinee is to attempt any 10 out of 13 questions.
3. Section II has two case studies. Each case study has 7 case-based sub-parts. An examinee is to attempt any 5 out of 7 sub-parts.

**Part – B:**

1. Question No. 16 to 20 are short answer Type (SA-I) questions of 2 mark each, Question No 21 to 25 are Short Answer Type (SA-II) questions of 3 marks each and Question No 26 is Long Answer Type question of 5 marks.
2. Internal choice is provided in 1 question of 2 marks, 1 question of 3 marks and 1 question of 5 marks.

| <b>Question No.</b> | <b>Part-A</b>  | <b>Marks allocated</b> |
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|                     | <b>Section-I</b><br><b>This section consists of 13 questions of very short answer type. Question no. 4 to 8 are of 'fill in the blank' type. Fill the blank with the most appropriate answer. Attempt any 10 questions from question no 1 to 13.</b> |                        |
| 1                   | What is a Homepage?  | 1                      |

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| 2  | Which heading element gives the most prominent headings?   | 1 |
| 3  | Give one use of anchor tag.  | 1 |
| 4  | _____ tag is used for a horizontal line.   | 1 |
| 5  | An empty HTML element has a _____ tag but no _____ tag.  | 1 |
| 6  | _____ tag creates a bulleted list.   | 1 |
| 7  | The code for inserting an image in an HTML page is <code>&lt;imgsrc=" " alt=" "&gt;</code> . The alt attribute is used for _____   | 1 |
| 8  | Ravi was trying to log-in to his net-banking account. He noticed that the URL of the net banking starts with 'https'. The 's' in 'https' stands for _____  | 1 |
| 9  | Sarita is designing a webpage and wants to change the name of the font (font-type) for certain text. Which attribute of the FONT tag she should use.   | 1 |
| 10 | What is the use of <code>&lt;br&gt;</code> tag in HTML Code?   | 1 |
| 11 | What is the significance of the URL?   | 1 |
| 12 | What is the importance of vlink attribute of <code>&lt;BODY&gt;</code> tag?  | 1 |
| 13 | What is the method of using comment line in the HTML code?   | 1 |
|    | <b>Section-II</b><br><br><b>Both the Case study based questions are compulsory. Attempt any 5 questions (out of 7 questions) from each case study. Each question carries 1 mark</b>                        |   |
| 14 | <b>Internet Protocols</b><br><br>For communication over the Internet, the communicating devices must follow certain rules. These rules are called Internet protocols. For email communication, we use SMTP |   |

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|       | and POP. For communication between browser and server HTTP and HTTPS protocols are used. We can use TELNET to access services available on a remote computer.  |   |
| (i)   | Which of the following is an Internet Protocol.<br>a) HTTP<br>b) FTP<br>c) both (a) and (b)<br>d) None of the above  | 1 |
| (ii)  | SMTP protocol is<br>a) used for composing an emailmessage.<br>b) used in receiving incoming emails by pulling the message from server to client<br>c) used in sending outgoing emails by pushing the message from client to server<br>d) None of the above | 1 |
| (iii) | POP protocol is<br>a) used for composing an emailmessage.<br>b) used in receiving incoming emails by pulling the message from server to client<br>c) used in sending outgoing emails by pushing the message from client to server<br>d) None of the above  | 1 |
| (iv)  | Which of the following internet protocols provides secure data transmission between server and browser with the help of encryption.<br>a) HTTP<br>b) HTTPS<br>c) TELNET<br>d) ARPANET  | 1 |

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| (v)   | <p>The full form of POP (email protocol) is</p> <ul style="list-style-type: none"> <li>a) Post Order Protocol</li> <li>b) Push Order Protocol</li> <li>c) Post Office Protocol</li> <li>d) Pull Over Protocol</li> </ul>  | 1 |
| (vi)  | <p>Which of the following protocol is used for delivering data from the source to the destination.</p> <ul style="list-style-type: none"> <li>a) TCP</li> <li>b) IP</li> <li>c) SMTP</li> <li>d) ARPANET</li> </ul>   | 1 |
| (vii) | <p>The Full Form of SMTP is</p> <ul style="list-style-type: none"> <li>a) Secure Mail Transfer Protocol</li> <li>b) Secure Mail Transmit Protocol</li> <li>c) Simple Mail Transmit Protocol</li> <li>d) Simple Mail Transfer Protocol</li> </ul>  | 1 |
| 15    | <p style="text-align: center;"><b>Secure data transmission</b></p> <p>Secure data transmission means that data/information is not being received or modified by an unauthorized person, over a network, from source to destination. For secure data transmission, we can convert an actual message (which is in readable form) into an unreadable message (called an encrypted message) with the help of the concept of encryption. This unreadable message is sent through the network to the destination. If a hacker tries to read this message, he/she receives an unreadable message that cannot be easily converted into the actual message. The unreadable message can be converted to the original message by the receiver at the destination.</p> <p>Caesar Cipher is one of the common encryption techniques. In this technique, each letter of the word is replaced by a letter some fixed number of positions (usually called as key) down the alphabet. For example, if the key is 3, each 'A' will be replaced by 'D' (Letter 'D' is 3 positions down Letter 'A' in the alphabet), each 'B' will be</p> |   |

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|       | replaced by 'E' and similarly, each 'Z' will be replaced by 'C'. The receiver can identify the original message by using the reverse technique of encryption. This reverse technique is called decryption.   |   |
| (i)   | .Secure data transmission means<br>a) Data can be accessed by any unauthorized person during transmission.<br>b) Data can not be accessed by any unauthorized person during transmission.<br>c) Transmission of data<br>d) None of the above         | 1 |
| (ii)  | Which of the following techniques can be used for security of data.<br>a) Authentication<br>b) Authorisation<br>c) Encryption<br>d) All of the Above   | 1 |
| (iii) | Caesar Cipher is<br>a) used for conversion of the actual message into an encrypted message<br>b) an encryption technique<br>c) both (a) and (b)<br>d) None of the above  | 1 |
| (iv)  | Person 'X' has received an encrypted message and wants to convert this message into the actual message (message before encryption). The technique he should use is called<br>a) Conversion<br>b) Encryption<br>c) Decryption<br>d) None of the above | 1 |

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| (v)  | A sender wants to send a message having the text as 'COMPUTER' to a receiver using 4 as the key. What will be the encrypted message?<br><br>a) GSQTZXIV<br>b) GSQTYXIV<br>c) GSXTYXIV<br>d) GSQSYXIV        | 1 |
| (vi)   | An encryption algorithm is used to transform a readable message into:<br><br>a) Text message<br>b) Simple message<br>c) Converted message<br>d) Encrypted message   | 1 |
| (vii)  | In Ceaser Cipher, for which of the following values of key, the encrypted message will be the same as original message.<br><br>a) 0<br>b) 26<br>c) both (a) and (b)<br>d) None of the above                 | 1 |
| <b>Part –B</b><br><br><b>All questions are compulsory. In case of internal choices, attempt any one.</b> |   |   |
| 16   | Sarvesh, a student of Class X, is not able to understand the difference between web client and web-server. Help him in understanding the same by explaining their role and giving suitable example of each. | 2 |
| 17   | Write the full form of Cc and Bcc (used in emailcommunication). Explain the difference between  | 2 |

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|    | them.   |   |
| 18 | What is the use of <sub> and <sup>tag. Explain with suitable example.   | 2 |
| 19 | Sunil wants to insert an image 'elearning.jpg' into a webpage. Write the name and the syntax of the HTML Tag she should use. The alternate text for the image should be 'E-learning Image'  | 2 |
| 20 | Define the following<br>(i) Intellectual Property Rights<br>(ii) Plagiarism<br><p style="text-align: center;"><b>OR</b></p> What is e-commerce? Write any two preventive measures to be taken for secure online transaction.        | 2 |
| 21 | Shalini, a web designer, wants to create a webpage to display a list where each item is listed by a number. Which type of list she should use? Explain the role of start and type attributes.                                       | 3 |
| 22 | What are the roles of Rowspan and Colspan attribute? Explain with suitable HTML example.  | 3 |
| 23 | Saroj, a student of Class X, wants to represent a table in webpage but she is unaware about the table tag. Explain her the role of <th>, <tr> and <td> tag. Write HTML code of a table and show the use of <th>, <tr> and <td> tag. | 3 |
| 24 | What is the digital divide? Write any two reasons for digital divide in India.  | 3 |
| 25 | Define Internet and write its two uses in our daily life. How is it different from the World Wide Web (www).<br><p style="text-align: center;"><b>OR</b></p> What is e-learning? Explain any two merits of e-learning.              | 3 |

26

## Our Country : India



India is spread over a large geographical area. In terms of area, it is the 7<sup>th</sup> largest country while in terms of population, it is the 2<sup>nd</sup> largest country in the world. Some facts about India are as follows

- Area : Approx 3.28 million sq. km
- North to South extension : Approx 3,200 km
- East to West extension : Approx 2900 km

5

Write the HTML code to design the above-shown web page considering the specifications as given below :

- Background color of the page should be yellow.
- Heading 'Our Country : India' should be the first level of heading
- The image named 'India.jpg' should be placed at the center.
- Formatting style for the paragraph
  - Font Size: 5
  - Font Name: Times New Roman
  - Color: Red
- Superscript and subscript tags should be used wherever required.
- Facts (as shown in the above web-page) should be written with the help of the unordered list.

**OR**

Answer the following

a. What is a Hypertext link?

b. Give the name and the syntax of the HTML Tag which is used for creating a Hypertext Link.

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|  | <p>c. Neha wants to display a 'Click Here' message on her webpage which, when clicked, opens a new webpage 'Chapter2.html'. Write the syntax of the HTML command she should use.</p> <p>d. On the same webpage, Neha whose email is neha@xyz.com, wants to display a 'Contact us' message which when clicked open the email program and allows the user to send a mail to Neha. Write the syntax of the HTML command she should use.</p> <p>e. Explain the use of the target attribute in the Hypertext Link Tag.</p> |  |
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