

## A2-R4: INTERNET TECHNOLOGY & WEB DESIGN

अवधि: 03 घंटे  
DURATION: 03 Hours

अधिकतम अंक: 100  
MAXIMUM MARKS: 100

ओएमआर शीट सं.:					
OMR Sheet No.:					

रोल नं.: 

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Roll No.:

उत्तर-पुस्तिका सं.: 

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Answer Sheet No.:

परीक्षार्थी का नाम:

परीक्षार्थी के हस्ताक्षर:

Name of Candidate: \_\_\_\_\_; Signature of candidate: \_\_\_\_\_

### परीक्षार्थियों के लिए निर्देश:

### Instructions for Candidate:

कृपया प्रश्न-पुस्तिका, ओएमआर शीट एवं उत्तर-पुस्तिका में दिये गए निर्देशों को ध्यान पूर्वक पढ़ें।	Carefully read the instructions given on Question Paper, OMR Sheet and Answer Sheet.
प्रश्न-पुस्तिका की भाषा अंग्रेजी है। परीक्षार्थी केवल अंग्रेजी भाषा में ही उत्तर दे सकता है।	Question Paper is in English language. Candidate can answer in English language only.
इस मॉड्यूल/पेपर के दो भाग हैं। भाग एक में चार प्रश्न और भाग दो में पाँच प्रश्न हैं।	There are <b>TWO PARTS</b> in this Module / Paper. <b>PART ONE</b> contains <b>FOUR</b> questions and <b>PART TWO</b> contains <b>FIVE</b> questions.
भाग एक "वैकल्पिक" प्रकार का है जिसके कुल अंक 40 हैं तथा भाग दो, "व्यक्तिपरक" प्रकार है और इसके कुल अंक 60 हैं।	<b>PART ONE</b> is Objective type and carries 40 Marks. <b>PART TWO</b> is subjective type and carries 60 Marks.
भाग एक के उत्तर, इस प्रश्न-पत्र के साथ दी गई ओएमआर उत्तर-पुस्तिका पर, उसमें दिये गए अनुदेशों के अनुसार ही दिये जाने हैं। भाग दो की उत्तर-पुस्तिका में भाग एक के उत्तर नहीं दिये जाने चाहिए।	<b>PART ONE</b> is to be answered in the <b>OMR ANSWER SHEET</b> only, supplied with the question paper, as per the instructions contained therein. <b>PART ONE</b> is <b>NOT</b> to be answered in the answer book for <b>PART TWO</b> .
भाग एक के लिए अधिकतम समय सीमा एक घण्टा निर्धारित की गई है। भाग दो की उत्तर-पुस्तिका, भाग एक की उत्तर-पुस्तिका जमा करने के पश्चात दी जाएगी। तथापि, निर्धारित एक घंटे से पहले भाग एक पूरा करने वाले परीक्षार्थी भाग एक की उत्तर-पुस्तिका निरीक्षक को सौंपने के तुरंत बाद, भाग दो की उत्तर-पुस्तिका ले सकते हैं।	Maximum time allotted for <b>PART ONE</b> is <b>ONE HOUR</b> . Answer book for <b>PART TWO</b> will be supplied at the table when the answer sheet for <b>PART ONE</b> is returned. However, candidates who complete <b>PART ONE</b> earlier than one hour, can collect the answer book for <b>PART TWO</b> immediately after handing over the answer sheet for <b>PART ONE</b> .
परीक्षार्थी, उपस्थिति-पत्रिका पर हस्ताक्षर किए बिना और अपनी उत्तर-पुस्तिका, निरीक्षक को सौंपे बिना, परीक्षा हॉल /कमरा नहीं छोड़ सकता है। ऐसा नहीं करने पर, परीक्षार्थी को इस मॉड्यूल / पेपर में अयोग्य घोषित कर दिया जाएगा।	Candidate cannot leave the examination hall / room without signing on the attendance sheet and handing over his Answer sheet to the invigilator. Failing in doing so, will amount to disqualification of Candidate in this Module/Paper.
प्रश्न-पुस्तिका को खोलने के निर्देश मिलने के पश्चात एवं उत्तर लिखना आरम्भ करने से पहले उम्मीदवार यह जाँच कर सुनिश्चित कर लें कि प्रश्न-पुस्तिका प्रत्येक दृष्टि से संपूर्ण है।	After receiving the instruction to open the booklet and before answering the questions, the candidate should ensure that the Question booklet is complete in all respect.

जब तक आपसे कहा न जाए, तब तक प्रश्न-पुस्तिका न खोलें।

**DO NOT OPEN THE QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.**

**PART ONE**  
**(Answer all the questions)**

1. Each question below gives a multiple choice of answers. Choose the most appropriate one and enter in the "OMR" answer sheet supplied with the question paper, following instructions therein. **(1x10)**

1.1 In the original ARPANET, \_\_\_\_\_ were directly connected together.

- A) IMPS
- B) Host Computer
- C) Network
- D) Routers

1.2 Switching in Internets done by using datagram approach to packet switching at the?

- A) Physical layer
- B) Application Layer
- C) Datalink Layer
- D) Network Layer

1.3 What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?

- A) Application
- B) Host-to-Host
- C) Internet
- D) Network Access

1.4 The computer jargon - WWWWW, stands for:

- A) World Wide Wildlife Web
- B) World Wide Women's Web
- C) World Wide Web Worm
- D) World Wide Women's Week

1.5 Which of this is not a class of IP address?

- A) Class E
- B) Class C
- C) Class D
- D) Class G

1.6 Choose the correct HTML tag for the smallest size heading?

- A) <h6>
- B <h1>
- C) <heading>
- D) <header>

1.7 Which built-in method returns the length of the string?

- A) size()
- B) length()
- C) index()
- D) None of the above

1.8 Search Engines are able to search \_\_\_\_\_ type of information?

- A) Documents
- B) Audio
- C) Video
- D) All of the above

1.9 The term 'Intellectual Property Rights' covers

- A) Copyrights
- B) Know-how
- C) Trade dress
- D) All of the above

1.10 Apart from <b> tag, what other tag makes text bold?

- A) <black>
- B) <strong>
- C) <bold>
- D) None of the above

2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and enter your choice in the "OMR" answer sheet supplied with the question paper, following instructions therein. **(1x10)**

2.1 JavaScript is loosely type language.

2.2 The process of transferring files from a computer on the Internet to your computer is called Downloading.

2.3 Dynamic address doesn't change every day.

2.4 To create Web Pages, we use a term called FTP.

2.5 12.0.0.1 is private IP address of Class A.

2.6 Search Engines maintain heavy database of keywords and urls.

2.7 An attempt to make a computer resource unavailable to its intended users is called denial-of-service attack.

2.8 The method of communication in which transmission takes place in both directions, but only one direction at a time is called Simplex.

2.9 MIME stands for Multipurpose Internet Mail Extensions.

2.10 A piece of malware that appears to be benign or useful, but actually causes damage to the system or allows another to gain access to the system is called a Trojan.

3. Match words and phrases in column X with the closest related meaning/ word(s)/phrase(s) in column Y. Enter your selection in the “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)

X		Y	
3.1	Extensible Markup Language	A.	How to display web page
3.2	Transmission Control Protocol and the Internet Protocol	B.	30
3.3	Datagram Protocol (UDP), queues are associated with	C.	128bits
3.4	Markup Tag tell the browser	D.	SMTP
3.5	Returns the string representation of the number's value	E.	Executable file
3.6	Web standard build by	F.	XML
3.7	Maximum number of IP addresses that can be assigned to hosts on a local subnet that uses the 255.255.255.224 subnet mask	G.	Open Source
3.8	How long is an IPv6 address?	H.	TCP/IP
3.9	File virus attaches itself to the	I.	60
3.10	Program Code freely available	J.	Socket
		K.	Port
		L.	W3C
		M.	toString()

4. Each statement below has a blank space to fit one of the word(s) or phrase(s) in the list below. Choose the most appropriate option, enter your choice in the “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)

A.	 	B.	Uniform resource locator	C.	<script>
D.	<HR>	E.	Internet bot	F.	VBScript
G.	25	H.	Star	I.	Stream-oriented
J.	WWW Bot	K.	<META>	L.	Stealth virus
M.	Ring				

- 4.1 TCP is a \_\_\_\_\_ protocol.
- 4.2 HTML tag for creating a line break is \_\_\_\_\_.
- 4.3 \_\_\_\_\_ also known as web robot.
- 4.4 URL stands for \_\_\_\_\_.
- 4.5 An alternative of JavaScript on windows platform is \_\_\_\_\_.
- 4.6 \_\_\_\_\_ is a form of virus explicitly designed to hide itself from detection by antivirus software.
- 4.7 \_\_\_\_\_ tag is an extension to HTML that can enclose any number of JavaScript statements.
- 4.8 The \_\_\_\_\_ tag provides metadata about the HTML document.
- 4.9 SMTP by default uses TCP port \_\_\_\_\_.
- 4.10 FDDI used \_\_\_\_\_ type of physical topology.

**PART TWO**  
(Answer any FOUR questions)

- 5.
- a) What is a Metasearch Engine? What are the advantages and disadvantages of Metasearch Engine?
  - b) Explain structure of e-mail. What are various e-mail protocols used for sending and receiving e-mails? Explain in brief.
  - c) What is firewall? Explain the basic types of Firewalls.

**(3+6+6)**

- 6.
- a) Write an HTML code for creating the following output:

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- b) What is JavaScript? Write a JavaScript program to input any positive number in a Text Box and display whether it is a palindrome number or not?
- c) Give difference between Container tag and Empty tag, explain with example. How do you include an image with width is 100px and height is 50px in an HTML document?

**(5+5+5)**

- 7.
- a) What is the network topology? What are the different types of network topology? Discuss Mesh topology.
  - b) TCP/IP plays important role in Communication. List the layers of TCP/IP model. Write the functionality of each layer. State merit and demerit of TCP/IP model.

**(7+8)**

- 8.
- a) What is Web Hosting? Explain different Types of hosting.
  - b) What is a URL? Explain the structure of a URL?
  - c) What is encryption? What are encryption schemes? Explain the difference between Private Key Cryptography and Public Key Cryptography.

**(5+5+5)**

9. Write short note on **any three** of the following:
- a) Domain Name System (DNS)
  - b) Internet and Intranet
  - c) Differentiate between Client Side Scripting and Server Side Scripting
  - d) e-Commerce

**(3x5)**

