M2-R4: INTERNET TECHNOLOGY AND WEB DESIGN

NOTE:

1.	There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
2.	**PART ONE** is to be answered in the **TEAR-OFF ANSWER SHEET** only, attached to the question paper, as per the instructions contained therein. **PART ONE** is **NOT** to be answered in the answer book.
3.	Maximum time allotted for **PART ONE** is **ONE HOUR**. Answer book for **PART TWO** will be supplied at the table when the answer sheet for **PART ONE** is returned. However, candidates, who complete **PART ONE** earlier than one hour, can collect the answer book for **PART TWO** immediately after handing over the answer sheet for **PART ONE**.

TOTAL TIME: 3 HOURS   **TOTAL MARKS: 100**
(PART ONE – 40; PART TWO – 60)

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 "tear-off" answer sheet attached to the question paper, following instructions therein.** (1x10)

1.1   The rules with regards to conduct for Internet users is known as
A)   Mosaic
B)   Netiquette
C)   Protocol
D)   Internet Protocol

1.2   TCP/IP is
A)   Abbreviation for Transmission Control Protocol and Internet Protocol
B)   A suite of networking protocols
C)   A standard protocol that lets disparate types of computers communicate over the Net
D)   All the above

1.3   The protocol that allows a computer to use the Internet Protocol with standard voice-grade telephone line and a high-speed modem is
A)   SLIP
B)   SMTP
C)   SGML
D)   RTF

1.4   A Spider is
A)   A Computer virus
B)   A Browser
C)   A program that catalogs web sites
D)   A hacker community

1.5   FTP does not use
A)   Two transfer mode
B)   Control connection to remote computer before file can be transferred
C)   User Datagram Protocol
D)   Authorization of a user through login and password verification

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1.6   A terminal emulation protocol that allows users to log-on to a host computer from remote computers is
A)   Telnet
B)   TCP/IP
C)   FTP
D)   Point-to-Point protocol (PPP)

1.7   Which of the following is used to enable the use of active documents?
A)   HTML
B)   CGI
C)   JAVA
D)   All of the above

1.8   A networking standard developed by Xerox, Intel and DEC; capable of connecting as many as 1,024 workstations and transmitting data at a maximum speed of 10 Mbps
A)   Ethernet
B)   FDDI
C)   File Transfer protocol
D)   Gopher

1.9   The HTML tags that create a table header are
A)   <head></head>
B)
C)   <th></th>
D)   <td></td>

1.10   Which of the following is the correct HTML for inserting background image?
A)   <background img="background.gif">
B)
C)   <a href="background.gif">
D)   <body background="background.gif">

2. **Each statement below is either TRUE or FALSE. Choose the most appropriate one and ENTER in the "tear-off" sheet attached to the question paper, following instructions therein.** (1x10)

2.1 Client server computing is the fundamental relationship of computers on the Net (or any network) in which one computer acts as a client by remotely connecting to another computer that acts as a server.

2.2 Domain name will change if a system's IP address changes.

2.3 Firewall protects an organization's computer systems from external access.

2.4 XML is a cross platform, software and hardware independent tool for transmitting information over the Net.

2.5 Just as HTML, XML also uses predefined tags.

2.6 IP only allows fixed packet sizes.

2.7 Cipher text is the meaningful form of encrypted message that can be read in transit by anyone.

2.8 Meta search engines are search engine tools that pass queries to a maximum of 6 search engines.

2.9 TELNET is a network protocol used on Internet to provide a bidirectional interactive text-oriented communications via a virtual terminal connection.

2.10 JavaScript can read and write HTML elements.

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 "tear-off" answer sheet attached to the question paper, following instructions therein.** (1x10)

	X		Y
3.1	An internet standard that extends the format of e-mail to support text in character sets	**A.**	EDI System
3.2	A hardware device connected to a host on a LAN that acts as a gateway between different types of networks	**B.**	User Interface
3.3	A set of formatting codes for creating documents.	**C.**	MIME
3.4	A self service model where customers configure and customize the products and services they wish to pay	**D.**	Router
3.5	An example of metasearch engine	**E.**	B2C E-commerce
3.6	The screen in which you type a query and which displays the search results	**F.**	<HTML> and </HTML>
3.7	Set of computer interchange standards for business documents such as invoices, bills and purchase orders	**G.**	SGML
3.8	Any web document must began and end with	**H.**	Dogpile
3.9	It is automatically appended to an outgoing mail message or network news post	**I.**	Public Key Infrastructure
3.10	A technique in which two different keys are used for performing encryption and decryption	**J.**	Bing
		K.	B2B E-commerce
		L.	Signature
		M.	IPv6

4. **Each statement below has a blank space to fit one of the word(s) or phrase(s) in the list below. Enter your choice in the "tear-off" answer sheet attached to the question paper, following instructions therein.** **(1x10)**

A.	POP	**B.**	Hyperlinks	**C.**	CERN
D.	Hacker	**E.**	Client-server computing	**F.**	Flame
G.	Geocities	**H.**	Address book	**I.**	WAIS
J.	Filter	**K.**	Authentication	**L.**	Webmaster
M.	XBM				

4.1   A(n) _____ is a place where you can store the information about the people with whom you correspond.

4.2   _____ is a Swiss organization that developed WWW.

4.3   _____ is one of the popular free Web presence providers, which helps you to create your own Website free of cost.

4.4   _____ is a powerful system for searching and retrieving information from databases scattered across the Net.

4.5   System administrator for a World Wide Web server is called as _____.

4.6   _____ is a protocol that is used to retrieve e-mail from a mail server.

4.7   The fundamental relationship of computers on the Net in which one computer acts as a client by remotely connecting to another computer that acts as a host is called as _____.

4.8   _____ is a security feature that allows access to information on an individual basis.

4.9   An inflammatory remark or a message usually associated with e-mail or an article posted to a newsgroup is referred to as _____.

4.10   _____ is a computer user who illegally visits networked computers to look around or cause harm.

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

5.
a) What are Internet Protocols? Write the names of five commonly used protocols.
b) Explain with diagram the differences between Star, Ring and Bus topologies.
c) What is Virtual Hosting? What are the types of Virtual Hosting?

(5+5+5)

6.
a) What are secure websites and SSL certificates?
b) How does a Web search engine works? What is a Meta Search Engine? Give examples.
c) What is a URL? Explain the structure of a URL?

(5+5+5)

7.
a) What is Client Server architecture? Give three examples of Client Server applications.
b) Explain the basic types of Firewalls.
c) What do you understand by the term encryption? What are encryption schemes? Explain the difference between Private Key Cryptography and Public Key Cryptography.

(5+5+5)

8.
a) Write an HTML code for creating the following output.

SHORT TERM COURSES

1.   **Operating System**
       *   **UNIX**
       *   **SOLARIS**
       *   **Windows**
 2.   **Office**
       *   **Word**
       *   **Excel**
       *   **Access**
       *   **PowerPoint**

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Note the followings:

i) Title page should be Computer Courses
ii) Background colour should be yellow
iii) Font face in the page should be Arial
iv) Text colour of the main heading should be Red
v) Pages linked with:
     a) UNIX as unix.html
     b) SOLARIS as solaris.html
     c) Windows as windows.html
     d) Word as word.html
     e) Excel as excel.html
     f) Access as access.html
     g) PowerPoint as power.html

        vi)   Link colour should be Black, Active Link colour should be Maroon and Visited link colour should be Magenta.

b)   i)   Give difference between Container and Empty element.
        ii)   Explain with syntax - <HR> tag?
        iii)   How do you include an image in an HTML document?

(9+6)

9.   Write short notes on **any three** of the following:
a)   IP Address
b)   Domain Name System
c)   E-mail addresses
d)   Electronic Commerce

(5+5+5)