

## 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 **OMR ANSWER SHEET** only, supplied with 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 “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)**
  - 1.1 What is Internet?
    - A) A Single Network
    - B) A vast collection of different networks
    - C) Interconnection of Local Area Networks
    - D) None of the above
  - 1.2 IPv6 address have a size of
    - A) 32 bits
    - B) 64 bits
    - C) 128 bits
    - D) 256 bits
  - 1.3 This protocol is used to transfer mail among mail servers
    - A) HTTP
    - B) SMTP
    - C) FTP
    - D) TELNET
  - 1.4 Online Publishing means
    - A) Creating and uploading web pages on web server
    - B) Selling online books on web server
    - C) Printing online books on web server
    - D) Creating online books on web server
  - 1.5 How can you open a link in its own unique new window?
    - A) TARGET=”\_NEW\_WINDOW”
    - B) TARGET=”NEW”
    - C) TARGET=”\_BLANK”
    - D) TARGET=”\_NEW”

1.6 Which protocol encrypts data between web server and browser?  
A) SIP  
B) HTTPS  
C) HTML  
D) SMTP

1.7 Which tcp port is used by a web server, in general?  
A) 21  
B) 80  
C) 25  
D) 23

1.8 Which is not a valid extension for HTML files?  
A) .htm  
B) .phtml  
C) .xml  
D) .shtml

1.9 Google service is an example of  
A) a DNS server  
B) a database server  
C) a portal  
D) a search engine

1.10 What is a web crawler?  
A) A computer virus  
B) A browser  
C) A program that index web sites  
D) A hacker community who hacks web sites

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

2.1 SSH is a protocol that allows computers to communicate with each other over encrypted connections.

2.2 A closed padlock icon in browser indicates that the connection is secure.

2.3 HTML tags tell a Web browser how to render a Web page.

2.4 A Trojan horse program will replicate itself via files that move from one computer to another.

2.5 JPEG is used to compress images.

2.6 Java is unique among programming languages because it is platform-dependent and only runs on Windows.

2.7 Copyrights are automatically associated with all written documents that contain original material.

2.8 IPv4 has 64-bit addresses.

2.9 The number of addresses in a class C block is 256.

2.10 Telnet is a client-server application program.

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	Serving dynamic documents on web	A.	PKI
3.2	Method to send information to web server	B.	CGI
3.3	Direct connection between two nodes	C.	PPP
3.4	Network technology for high-speed transmission	D.	DNS
3.5	VBScript gets executed in	E.	BROWSER
3.6	Domain names translation	F.	CHAT
3.7	Live communication	G.	FLASH
3.8	Transfer files to a server	H.	FTP
3.9	Animation software	I.	POST
3.10	An encryption system that use two keys	J.	ATM
		K.	SERVER
		L.	TCIP
		M.	URL

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 “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)

A.	EDI	B.	HTML	C.	TCP
D.	IRC	E.	HTM	F.	XML
G.	<B>	H.	FACEBOOK	I.	YAHOO
J.	MIME	K.	FRONTPAGE	L.	HTTP
M.	UDP				

- 4.1 \_\_\_\_\_ is a connection-oriented protocol.
- 4.2 \_\_\_\_\_ is a markup language.
- 4.3 \_\_\_\_\_ is a multi-user, multi-channel chatting network.
- 4.4 A web browser can display any ASCII text file that has a file name with the file extension \_\_\_\_\_.
- 4.5 \_\_\_\_\_ is a social network site.
- 4.6 \_\_\_\_\_ is a protocol that allows non-ASCII data to be sent through email.
- 4.7 \_\_\_\_\_ is a search engine.
- 4.8 \_\_\_\_\_ is a web publishing tool.
- 4.9 \_\_\_\_\_ tag makes text bold in HTML.
- 4.10 \_\_\_\_\_ is a data format standard used in e-commerce.

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

- 5.**  
a) What is the Internet? How it differs from the World Wide Web?  
b) Explain Packet switching technology.  
c) What is a network firewall? How it protects from unauthorized access. **(5+5+5)**
- 6.**  
a) Explain IPv4 addressing scheme.  
b) What does Internet Crime mean? Write any three types of Internet crime.  
c) Write about web based e-mail. Explain any one web based e-mail service. **(5+5+5)**
- 7.**  
a) Explain e-mail protocols – SMTP, POP3 and IMAP4.  
b) What is a VB script? Write a program to print “Hello World” using VB Script.  
c) Explain asymmetric cryptosystems. **(5+5+5)**
- 8.**  
a) Write a html program to print your country name in green color and set its title to ‘My Country’.  
b) Write a html program to create links to two search engines.  
c) Write a html program to display an image that has a border of size 2, a width of 200, and a height of 200.  
d) Write a HTML program to print a paragraph with 3 sentences. Each sentence should be a different font.  
e) Write a program to print an ordered list. **(3+3+3+3+3)**
- 9.** Write short notes on **any three** of the following:  
a) Network topologies: bus, ring, star  
b) Meta Search Engine  
c) Web Page Design Consideration and Principles  
d) Information Privacy and Copyright Issues **(5x3)**