

Sl. No.

B1.2-R4 : INTERNET TECHNOLOGY AND WEB DESIGN

DURATION : 03 Hours

MAXIMUM MARKS : 100

OMR Sheet No. :

Roll No. :

Answer Sheet No. :

Name of Candidate : _____ ; Signature of Candidate : _____

INSTRUCTIONS FOR CANDIDATES :

- Carefully read the instructions given on Question Paper, OMR Sheet and Answer Sheet.
- Question Paper is in English language. Candidate has to answer in English language only.
- There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
- **PART ONE** is Objective type and carries **40** Marks. **PART TWO** is Subjective type and carries **60** Marks.
- **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 for **PART TWO**.
- 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** to the Invigilator.
- **Candidate cannot leave the examination hall/room without signing on the attendance sheet and handing over his/her Answer Sheet to the invigilator. Failing in doing so, will amount to disqualification of Candidate in this Module/Paper.**
- 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.

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

PART ONE

(Answer all questions; each question carries ONE mark)

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.

(10x1)

1.1 _____ is the default port for HTTP.

- (A) 23
- (B) 80
- (C) 21
- (D) 25

1.2 Which of the following HTML tag is used for largest heading ?

- (A) <heading6>
- (B) <h5>
- (C) <h1>
- (D) <large>

1.3 Which of the following protocol is responsible for mail transfer ?

- (A) SMTP
- (B) HTTP
- (C) POP3
- (D) IMAP4

1.4 ARPANET stands for _____.

- (A) Advanced Research Programmed Auto Network
- (B) Advanced Research Project Agency Network
- (C) Advanced Research Project Automatic Network
- (D) Advanced Research Project Authorized Network

1.5 Which of the following is an internet protocol ?

- (A) Modem
- (B) Transmission Control Protocol (TCP)
- (C) HTML
- (D) Hypertext Preprocessor (PHP)

1.6 Which of the following protocol used to find the address of a local device ?

- (A) RARP
- (B) IP
- (C) ARP
- (D) ICMP

1.7 In _____ topology network consists direct link between two computers.

- (A) P2P
- (B) Star
- (C) Ring
- (D) Bus

1.8 The size of an ATM cell is :

- (A) 48 bytes
- (B) 8 bytes
- (C) 53 bytes
- (D) 50 bytes

1.9 URL stands for :

- (A) Uniform Resource Locator
- (B) Uniform Research Locator
- (C) Uniform Research Link
- (D) Uniform Resource Link

1.10 _____ is used to get files from the another computer on the internet.

- (A) UTP
- (B) TELNET
- (C) FTP
- (D) HTTP

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.

(10x1)

- 2.1 Class C IP address provides a maximum of only 254 host addresses per network ID.
- 2.2 For Telnet or FTP presentation layer is the highest layer used to transfer the data.
- 2.3 If there are n devices in a mesh topology network, then the total number of simplex links are $n(n+1)$.
- 2.4 Telnet protocol is used to establish a connection to TCP port 24.
- 2.5 HTML tags are case insensitive.
- 2.6 Email can send only text messages.
- 2.7 MIME abbreviation in HTML is Multipurpose Internet Mail Extensions.
- 2.8 The participating computers in a network are referred as servers.
- 2.9 The role of JavaScript engine is to interpret the JavaScript.
- 2.10 ASP is client side scripting language.

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. (10x1)

X		Y	
3.1	File virus attaches itself to the	A.	HTTP
3.2	Markup language used to create static webpages	B.	Internet
3.3	Protocol used to transfer files	C.	Executable File
3.4	Network of networks called	D.	
3.5	Stateless protocol	E.	48 bits
3.6	Length of MAC address	F.	Simplex
3.7	Tag creates a number/order list	G.	Full duplex
3.8	A layer of TCP/IP responsible for process-to-process delivery	H.	TCP
3.9	A transmission that generally involves dedicated circuits	I.	FTP
3.10	Telephone network operates in this mode	J.	Half duplex
		K.	HTML
		L.	<OT>
		M.	Transport Layer

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.	127.0.0.1	B.	Sender Site	C.	IP address	D.	Header translation
E.	Port number	F.	RAM	G.	Virus filter	H.	Packet filter
I.	LAN	J.	Broadcast	K.	Unicast	L.	half-duplex mode
M.	Dual Stack						

- 4.1 Multiple processes on destinations at transport layer are identified by _____.
- 4.2 In transport layer, Multiplexing is done at _____.
- 4.3 _____ is necessary when the sender wants to use IPv6, but the receiver does not understand IPv6.
- 4.4 Cache memory acts between CPU and _____.
- 4.5 Network layer firewall works as a _____.
- 4.6 A _____ is a network that connects computers and other devices in a relatively small area, typically a single building or a group of buildings.
- 4.7 HUB is a _____ device.
- 4.8 Switch is a _____ device.
- 4.9 Communication circuit that transmit data in both directions but not at same time is _____.
- 4.10 _____ is the loopback address.

PART TWO

(Answer any FOUR questions)

5. (a) Differentiate between LAN, MAN and WAN.
(b) Explain SMTP, FTP and HTTP protocol in detail.
(c) Explain the client server architecture with some real time application examples.

(5+5+5)

6. (a) Explain most common internet cybercrimes.
(b) Differentiate between packet switching and circuit switching.
(c) Explain Bus and Star topology in detail.

(5+5+5)

7. (a) Explain transmission control protocol/ internet protocol (TCP/IP) in detail.
(b) What is firewall ? Briefly explain different types of firewalls.

(8+7)

8. (a) Differentiate between :
(i) Telnet and FTP
(ii) Hub and Switch
(b) Explain HTML table tag with suitable example.
(c) What is an IP Address ? Highlight the key differences between IPv4 and IPv6.

(5+5+5)

9. (a) What is DNS ? What is DNS server ? Also, list the elements of DNS hierarchy.
(b) What is E-commerce ? What are the different types of E-commerce ? Also, write down the examples of E-commerce.

(8+7)

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SPACE FOR ROUGH WORK

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