M2-R4: INTERNET TECHNOLOGY AND WEB DESIGN

NOTE:

IMPORTANT INSTRUCTIONS:

1. Question Paper in English and Hindi and Candidate can choose any one language.
2. **In case of discrepancies in language, English version will be treated as final.**
3. There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
4. **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.
5. 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 The memory allocation scheme subject to "external" fragmentation is
A) segmentation
B) swapping
C) pure demand paging
D) multiple fixed contiguous partitions

1.2 SSTF stands for
A) Shortest-Seek-time-first scheduling
B) small – small-time-first
C) simple-seek-time-first
D) small-simple-time-first scheduling

1.3 The total time to prepare a disk drive mechanism for a block of data to be read from its
A) latency
B) latency plus transmission time
C) latency plus seek time
D) latency plus seek time plus transmission time

1.4 Resolution of externally defined symbols is performed by
A) Linker
B) Loader
C) Compiler
D) Editor

1.5 The total time to prepare a disk drive mechanism for a block of data to be read from is:
A) latency
B) latency plus transmission time
C) latency plus seek time
D) latency plus seek time plus transmission time

1.6 FTP Tool is to
A) Used to transfer data/files among computers on the Internet
B) Archive data/files
C) Copy files from external sources
D) Delete file from Internet

1.7 Multi programming system is
A) A computer system that permits multiple users to run programs at same time
B) A computer system that permits run similar programs at multiple time
C) A computer system that permits multiple Programs to run at same time
D) None of the above

1.8 The circuit used to store one bit of data is known as
A) Register
B) Encoder
C) Decoder
D) Flip Flop

1.9 _____ Command is used to manipulate TCP/IP routing table.
A) route
B) ipconfig
C) ifconfig
D) traceroute

1.10 Which of the following is related to ipconfig in Microsoft Windows?
A) Display all current TCP/IP network configuration values
B) Modify DHCP settings
C) Modify DNS settings
D) All of the above

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 Re-locatable programs can be loaded almost anywhere in memory.
2.2 Action implementing instruction's are actually carried out by Instruction program.
2.3 The main reason to encrypt a file is to secure it for transmission.
2.4 Compile and Go loader is executed when a system is first turned on.
2.5 The average time required to reach a storage location in memory and obtain its contents is called access time.
2.6 A program in execution is called Procedure.
2.7 Simple Mail Transfer Protocol is used for encrypting files.
2.8 DVD is a Memory Device.
2.9 Printer can be shared in LAN by many users.
2.10 PKZIP utility is used to encrypt or decrypt files.

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	Assembly language	**A.**	MS-Office file extension
3.2	Process	**B.**	uses alphabetic codes in place of binary numbers used in machine language.
3.3	Cache	**C.**	A program in execution is called
3.4	An assembler is	**D.**	Machine dependent.
3.5	.DOC	**E.**	Local Memory where Copies of frequently used or recently requested web pages are saved
3.6	An assembly language is a	**F.**	Network protocol
3.7	Virtual memory is	**G.**	Data Compression Software
3.8	Throughput of a system is	**H.**	used in all major commercial operating systems
3.9	Router	**I.**	Volatile Storage
3.10	FTP	**J.**	File Transfer protocol
		K.	low level programming language
		L.	A special purpose computer that directs packets of data along a network
		M.	Number of programs processed by it per unit time

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.	Cache memory	**B.**	Mail Server	**C.**	SLIP
D.	PC(Program Counter)	**E.**	TCP/IP	**F.**	RAM
G.	Win ZIP	**H.**	MAC	**I.**	Bootstrap loader
J.	DMA	**K.**	Hub	**L.**	Modem
M.	WINDOWS				

4.1 Compressing multiple files into one using _____ is an easy process.
4.2 _____ address is usually stored in ROM on the network adapter card and is unique.
4.3 Direct Memory Access is abbreviated as _____.
4.4 _____ Protocol used for transmission of IP datagrams across a serial line.
4.5 _____ are present in the network to interconnect the LAN with WANs.
4.6 Write Through technique is used in _____ for updating the data.
4.7 Cache memory acts between CPU and _____.
4.8 _____ loader is executed when a system is first turned on or restarted.
4.9 Device used to translating digital signals into analog signals and vice-versa is called a(n) _____.
4.10 The logical addresses in the _____ protocol suite are called IP addresses.

PART TWO

(Answer **any FOUR** questions)

5.

a) What is traffic shaping?
b) Explain how firewalls protect network.
c) Explain the use of SSL to secure the network.

(5+5+5)

6.

a) Define interrupt. Why priority of interrupt is required? How is it restored?
b) Explain the difference between Internet, Intranet and Extranet?
c) What is the difference between LAN, MAN and WAN?

(5+5+5)

7.

a) What do you understand by WWW? What is the use of hypertext links in Internet access? Name some popular Internet Browsers.
b) What is Public Key Cryptography? Explain its advantages and disadvantages.
c) What is on electronic payment system? What are its types and advantages?

(5+5+5)

8.

a) How do you make an image clickable in HTML? Give an example.
b) How non-textual information contained in a web page.
c) What is CGI? Explain.
d) Write an HTML program segment that contains hypertext links from one document to another?
e) Write a CGI program that prints date and time at which it was run.

(3+3+3+3+3)

9. Explain the following terms:

a) Digital Signature
b) Anti-Virus Software
c) Win-Zip Software

(5+5+5)