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 Assembly language
A) uses alphabetic codes in place of binary numbers of machine language.
B) is easiest language to write program.
C) need not be translated to machine language.
D) none of the above.

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

1.3 A router
A) Screens incoming information.
B) Distributes information between networks
C) Clears all viruses from a computer system
D) Is a work virus.

1.4 Telnet is a
A) Network of Telephones
B) Television Network
C) Remote Login
D) Remote Copy.

1.5 Mechanism to protect private networks from outside attack is
A) Firewall
B) Antivirus
C) Digital signature
D) Formatting
1.6 When CPU is executing a Program that is part of the Operating System, it is said to be in
A) Interrupt mode
B) System mode
C) Half mode
D) Simplex mode

1.7 A Windows utility program that locates and eliminates unnecessary fragments and rearranges files and unused disk space to optimize operations
A) Backup
B) Disk Cleanup
C) Disk Defragmenter
D) Restore

1.8 Dangerous programs that can be “caught” in a variety of ways including opening e-mail attachments and downloading software from the Internet.
A) app
B) spam
C) utility
D) virus

1.9 Tool that is used to transfer data/files among computers on the Internet
A) FTP
B) Archie
C) SMTP
D) Gopher

1.10 A computer system that permits multiple users to run programs at same time
A) Real time system
B) Multi programming system
C) Time sharing system
D) Multi tasking system

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 Telnet is a service that runs remote program.
2.2 Co-axial cables the fastest media of data transfer.
2.3 Multi tasking system permits multiple users to run programs at same time.
2.4 Floating point representation is used to store real integers.
2.5 Accumulator keeps track of the instructions stored in program stored in memory.
2.6 Arithmetic operations with fixed point numbers take longer time for execution as compared to with floating point numbers.
2.7 Trojan horse is a program that performs not only a desired task but also includes unexpected malicious functions.
2.8 In computers, subtraction is carried out generally by 2’s complement method.
2.9 LDAP stands for Large Directory Access Protocol.
2.10 Hard disk is used as a main memory in computer for high speed operation.
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)

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1  Windows</td>
<td>A. MS-Office file extension</td>
</tr>
<tr>
<td>3.2  SMTP</td>
<td>B. The horizontal naming system.</td>
</tr>
<tr>
<td>3.3  AD</td>
<td>C. Simple Mail Transfer Protocol</td>
</tr>
<tr>
<td>3.4  PPT</td>
<td>D. Network layer</td>
</tr>
<tr>
<td>3.5  PKZIP</td>
<td>E. Address Register</td>
</tr>
<tr>
<td>3.6  NTFS</td>
<td>F. Network protocol</td>
</tr>
<tr>
<td>3.7  CMOS</td>
<td>G. Data Compression Software</td>
</tr>
<tr>
<td>3.8  ADSL</td>
<td>H. File Management</td>
</tr>
<tr>
<td>3.9  DVDs</td>
<td>I. Volatile Storage</td>
</tr>
<tr>
<td>3.10 DNS</td>
<td>J. Asymmetric Digital Subscriber Line</td>
</tr>
<tr>
<td></td>
<td>K. Optical Discs</td>
</tr>
<tr>
<td></td>
<td>L. Centrally Monitor Operating System</td>
</tr>
<tr>
<td></td>
<td>M. Operating System</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>A. SMTP</th>
<th>B. doc</th>
<th>C. Assembler</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Private encryption</td>
<td>E. bits</td>
<td>F. IP</td>
</tr>
<tr>
<td>G. Compiler</td>
<td>H. Switch</td>
<td>I. Symmetric encryption</td>
</tr>
<tr>
<td>J. Utility programs</td>
<td>K. Fiber Optic</td>
<td>L. Internet</td>
</tr>
<tr>
<td>M. Firewalls</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.1 ________ Protocol used for transferring message between end user and Mail Server.
4.2 The time interval between adjacent ________ is called Bit-time.
4.3 Secret-key encryption is also known as ________.
4.4 ________ is the fastest media for data transfer.
4.5 A device that forwards data packet from one network to another is called a ________.
4.6 An Internet security suite is a collection of ________.
4.7 A Microprocessor development system and an ________ are essential tools for writing large assembly language programs.
4.8 ________ operate by screening packets to/from the Network and provide controllable filtering of network traffic.
4.9 Microsoft extension of word file is ________.
4.10 The logical addresses in the TCP/IP protocol suite are called ________ addresses.
PART TWO
(Answer any FOUR questions)

5.  a) What do you understand by www? Name some popular browsers.
    b) What are IP addresses? Explain in brief.
    c) Explain Direct Memory Access (DMA)?

6.  a) What is the difference between LAN, MAN and WAN?
    b) What are the advantages & disadvantage of Optical Fiber?
    c) Write functions of each layer of OSI reference model.

7.  Discuss in brief the following terms:
    a) Telnet
    b) http (hypertext transfer protocol)
    c) Remote login

8.  Explain the use of following devices used in networking:
    a) Digital Switches
    b) Routers
    c) Firewall

9.  a) What is the functionality of Anti-virus software?
    b) What is the functionality of the commands ‘ipconfig’, ‘nslookup’ and ‘ping’?
    c) Explain the features of a Zip utility for file compression.