

COPYRIGHT RESERVED

Comp/I/01/09 — I

2008-09

Time : 3 hours

Full Marks : 80

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

*Answer from **both** the Groups as directed.*

Group – A

(Compulsory)

Answer **all** questions : $2 \times 10 = 20$

1. Select the correct option from the following :

(a) UNIVAC is an example of :

- (i) First Generation Computer
- (ii) Second Generation Computer
- (iii) Third Generation Computer
- (iv) Fourth Generation Computer

EL – 6/1

(Turn over)

(b) An imaginary memory supported by the operating system in conjunction with the secondary memory :

- (i) Cache Memory
- (ii) Primary Memory
- (iii) Virtual Memory
- (iv) Secondary Memory

(c) Which one is not the language of Internet ?

- (i) Perl
- (ii) HTML
- (iii) XML
- (iv) Java

(d) Fastest Memory in computer system is :

- (i) ROM
- (ii) RAM
- (iii) Cache
- (iv) None of the above

(e) The spiral shape track formatting is present in :

- (i) Floppy Disk

- (ii) Optical Disk
 - (iii) Hard Disk
 - (iv) Magnetic Tape Real
- (f) Firmware is :
- (i) Software embedded in hardware
 - (ii) Liveware embedded in software
 - (iii) Liveware embeded in hardware
 - (iv) None of the above
- (g) Which of the following best describes 'SOFTWARE' ?
- (i) O/S programs only
 - (ii) Application programs only
 - (iii) Both (i) and (ii)
 - (iv) None of the above
- (h) 1 Kbits is :
- (i) 1000 bits
 - (ii) 512 bits
 - (iii) 1024 bits
 - (iv) None of the above

- (i) The language understood by a computer without translation is called :
- (i) Command Language
 - (ii) Machine Language
 - (iii) High Level Language
 - (iv) Assembly Language
- (j) The way networks are physically connected together is called :
- (i) Protocol
 - (ii) Hub
 - (iii) Linear Bus
 - (iv) Topology

Group – B

Answer any **four** questions.

2. Define Computer. Also explain the functioning of the computer with its block diagram. 15
3. Perform the following conversions : 15
- (a) $(0001101)_2 = (?)_{10}$
 - (b) $(278)_{10} = (?)_2$

- (c) $(0.625)_{10} = (?)_2$
(d) $(ABC)_{16} = (?)_8$
(e) $(1101011.1011)_2 = (?)_2$
4. Discuss the advantages and disadvantages of the following languages : 15
- (a) Machine Languages
 - (b) Assembly Languages
 - (c) High Level Languages (HLL)
5. Distinguish between the followings : 15
- (a) Input Devices and Output Devices
 - (b) RAM and ROM
 - (c) BCD and EBCDIC
6. Explain the following types of operating system in detail : 15
- (a) Batch Processing
 - (b) Time Sharing
 - (c) Multi Tasking
 - (d) Real Time
 - (e) Multi Processing

7. What do you mean by computer network ?
Describe its advantages and disadvantages.
Also explain various types of networks. 15
8. With the help of diagram, explain various network
topologies present in the computer networks. 15
9. Explain the need of information in our lives. Also
describe the essential components of
information technology. 15
10. Describe the following networking devices in
details : 15
- (a) Router
 - (b) Hub
 - (c) Gateway
 - (d) Bridge

