Total No. of printed pages = 4

INFORMATION TECHNOLOGY

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer question Nos.1 and 2 and any *five* from the rest.

1. (i) Choose the correct answer from the following : 5

   (1) The second generation of computers used ....

   (a) IC-chip

   (b) Transistors

   (c) Vacuum tubes

   (d) Microprocessor.

   (2) The language that the computer can understand and execute is

   (a) Machine language

   (b) Application software

   (c) System program

   (d) None of the above.

(3) ⬜ is a .... symbol.

    (a) Processing

    (b) Terminal

    (c) Input/output

    (d) Decision.

(4) Which media does not come under the guided media ?

    (a) Optical fibre

    (b) Co-axial cable

    (c) Microwave

    (d) Twisted pair.

(5) Which of these is not an E-commerce activity ?

    (a) B2B

    (b) C2B

    (c) B2A

    (d) C2C.

(ii) Write the full form of the following : 5

    (a) FTP

    (b) HTTP

    (c) EDVAC

    (d) FORTRAN

    (e) ENIAC.

2. (i) Convert the following numbers to their binary equivalent : $2+3=5$

(a) 1694_{10} (b) 2614_8

(ii) Encode the given string MALAYALAM using shanon fano algorithm. 5

3. Discuss about the first generation of programming language and state its advantages and disadvantages. 10

4. What is RAM ? Differentiate between static and dynamic RAM. $4+6=10$

5. What is network topology ? Describe three network topologies and state their relative advantages and disadvantages. $1+9=10$

6. What is an operating system ? What are the main functions of an operating system ? Explain. $4+6=10$

7. What is DBMS ? Explain various components of DBMS. $2+8=10$

8. Differentiate between the following : $6+4=10$

(a) Lossless and lossy data compression technique.

(b) Data and information.

9. Define the following :   5×2=10

   (i) URL

   (ii) Compiler

   (iii) Router

   (iv) Search engine

   (v) E-mail.