

# INFORMATION TECHNOLOGY

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi medium. If a candidate who has not opted for Hindi medium, answers in Hindi, his answer in Hindi will not be valued.

Question No. **1** is compulsory.  
Answers any **four** from the rest.

Marks 1x5=5

1. (a) Convert the following from one number system to another system along with the working notes

- i)  $(65.65)_{10} = (\dots\dots\dots)_2$
- ii)  $(12AE)_{16} = (\dots\dots\dots)_{10}$
- iii)  $(39.B6)_{16} = (\dots\dots\dots)_8$
- iv)  $(245)_8 = (\dots\dots\dots)_{16}$
- v)  $(1011.1101)_2 = (\dots\dots\dots)_{10}$

(b) Describe briefly, the following terms with reference to Information Technology: 1x5=5

- i) Flash Memory
- ii) Clock Speed
- iii) URL
- iv) File volatility
- v) Seek time.

(c) Give one or more reasons of use for each of the following:

- i) MICR
- ii) SQL
- iii) Boot Record
- iv) GUI
- v) Disk formatting program

(d) Write True or False for each of the following:

1x5=5

- i) Computer system may function a bit faster if certain of program's window are closed on the system running too many applications simultaneously.
- ii) Binary equivalent of a terminating decimal fraction need not be terminating.
- iii) Protocol is geometric arrangement of computer resources.
- iv) The largest number a computer can store depend on its 'WORD LENGTH'.
- v) Formula is ah equation that performs operation on worksheet.

2. Distinguished between the following:

- i) CD-ROM and ROM-BIOS
- ii) Internet and World Wide Web.
- iii) Multi-programming and Multi-Tasking.
- iv) Control Unit and ALU

v) MODERN and Multiplexer.

3. (a) Mention the advantages of DBMS.

(b) Discuss various issues related to data management.

(c) There are total 6,000 students in a university having four different disciplines. Their discipline code and yearly tuition fee per student, details are as follows:

Discipline of student	Code	Yearly tuition fee
Medical	M	80,000
Engineering	E	60,000
Science	S	40,0000
Arts	A	25,000

Draw a flowchart to read the name, discipline code of the student's from the terminal/file. Find the total yearly revenue earned and the number of students discipline wise. Also find the percentage of contribution to the total revenue from each discipline of students.

Print the total revenue collected and the number of students, the percentage of their contribution disciplines wise to the total revenue earned by the university.

4. (a) Describe 'Ring Network' as a network topology. Also mention its advantages and disadvantages.

(b) Define an Operating System and discuss its various functions.

(c) Write various steps involved to perform Mail-Merge.

(d) Write the steps for creating a new macro on MS-EXCEL

5. (a) Describe the language tools offered in MS-WORD to aid writing.

(b) Define the following functions used in MS-EXCEL:

i) DB ( )

ii) COUNTIF ( )

iii) INT ( )

iv) CLEAN ( )

v) NPV ( )

c) Give an account of the benefits of "Electronic Commerce" application and implementation. 10

6. (a) What are the objectives of introducing IT ACT, 2000?

(b) How is digital signature created? Describe it.

(c) Mention used of CATTs. What factors should be considered in determining whether to use CATTs?

7. Write short notes on any four of the following:

i) Voice Recognition

ii) Touch Screen

iii) Data File Interrogatin

iv) Clip Gallery

v) Enhanced features of 'Power Point'.