Note: 1) All questions are compulsory.
                2) Figures to the right indicate marks.

Q.1   **A**   **State whether the following statements are True / False :**   **(8)**

1. Operating systems were developed in second generation of computers.
2. The speed of a computer is linked to the technology used to built it.
3. 1024 Kilobytes = 1 Megabyte.
4. Hard disks have no moving parts.
5. Input / output is represented by a parallelogram shape in a flow chart.
6. E-Commerce stands for Electronic Commerce.
7. There should be at least one pair of braces for a C-program.
8. A value stored as float has 6 decimals in it by default.

Q.1   **B**   **Select the appropriate option from the following :**   **(7)**

1. 1 Byte is equal to ……… Bits.
   a) 10   b) 8   c) 4   d) 512

2. In Analog Computers the data is processed in a ………form.
   a) Continuous   b) Discrete
   c) Nano   d) Pico

3. MIS stands for ………..
   a) Memory internal System
   b) Management Information System
   c) Market Information System
   d) Mainframe Information System

4. The decimal number system has a base of ……….
   a) 10   b) 16   c) 2   d) 8

5. The format character used for representing data type float is…...
   a) %ld   b) %s   c) %d   d) %f

6. There are ……. Storage classes in C.
   a) 0   b) 5   c) 4   d) 6

7. ++y is called ……….
   a) Post increment   b) Pre increment
   c) Post decrement   d) Pre decrement

Q.2   **Answer the following questions (any 3) :**   **(15)**

a. Explain different generations of computers, highlighting the improvements in them.
b. Differentiate between : Mainframe Computers and Minicomputers.
c. Write a short note on Memory or Storage Unit.
d. I) Convert the following decimal numbers to binary.
   a) $(56.25)_{10}$ b) $(202.625)_{10}$

   II) Find 1's complement and 2's complement for the following binary numbers.
   a) 1011   b) 101010   c) 111110

Q.3   **Answer the following questions (any 3) :**   (15)

    e.   Explain different types of System softwares in detail.

    f.   Explain different characteristics of interpreter and compiler.

    g.   Write algorithm and draw flowchart to calculate area of Circle.
       (Given: Area = PI * r *r)

    h.   Discuss the applications of computer to
       a) E-Commerce
       b) Management Information System

Q.4   **Answer the following questions (any 3) :**   (15)

    i.   What is constant? Which are the different types of constant? Explain
       each with example.

    j.   Write short note on :
       a) File inclusion : stdio, conio and math
       b) Keywords

    k.   Explain printf() and scanf() functions with example.

    l.   Give the output of the following C-program:

```
#include<stdio.h>
void main()
{
    int i;
    for(i=1;i<=10;i++)
    {
    printf("%d \n", i);
    }
}
```

Q.5   **Answer the following questions (any 3) :**   (15)

    m. Explain all loops with its format and example.

    n.   Explain following C-program functions with example:
       a) getch()   b) putchar()

    o.   Write a C-program to find and print sum of the following series :
$$2 + 4 + 6 + \ldots + 22$$

    p.   Write a C-program to display table of 7.

------X-----X-----