**Max Marks : 70**                                                    **Time : 3 Hours**

**Instructions :**
*(i)      All questions are compulsory.*
*(ii)     Marks for each question mentioned against it.*
*(iii)    Answer the question after carefully reading the text.*

### Programming and Computational Thinking

1. Define System software and application software.                    2
2. Which of the following is/are Operating system                      2
   a. Windows      b. MS Office      c. Linux      d. Adobe Photoshop
3. Define the term Memory with their Types.                            2
4. Expand the following term                                           2
   a. DVD
   b. ROM
6. Python is a *Platform Independent Language*. What do you understand by this feature    2
7. Differentiate between int ( ) and float ( ) in Python              2
8. What is comment? How can you create single line comments in Python?    2
9. What will be the output of the following code?                      2
   a.  x = 20
       y, x=x,10
       print (y, x)

   b.  print (10 + 90 / 2)
10. Write a program to get a number in Python display its square       2
11. Write a program code to print the sum of two numbers.              2
12. What are arithmetic operators in Python.                           2
13 Create a list in Python that should contain seven no's and print first and last no. from the list    2
14. Write a program to print the following numbers by for loop         2
    **1,3,5,7,9**
15. Write a program to get four numbers' in Python and display maximum no between first and second no and smallest no between 3$^{rd}$ and 4$^{th}$ no's.    4
16. Define all Relational Operators in Python                          4
17. Write the output of the following program:                         4
    x=10
    y=50
    z=40
    print(x)
    x=y
    print(x+z)
18. Differentiate between Dictionary and List with examples.           4
19. Write Complete explanations about loops available in Python        4
20. Write a program to display all the vowels from a string.           2
21. Write the output of the following program in python:               2
    if   "NINE" = ="nine":
       print("True")
     else:
        print("False")

## ( MY SQL)

1. Study the table *'product'* given below and answer the questions.

| P_Id | Pname | Dop | Price |
|------|-------|-----|-------|
| IC301 | Samsung | 2021-1-10 | 15000 |
| IC799 | Videocon | 2020-12-10 | 14000 |
| MC101 | LG | 2021-1-20 | 9000 |

    a) Write the data types of all the columns in the above table.    2

    b) Write the commands to insert records as given in the product table?    2

    c) Write a SQL command to delete all records from product table?    1

2. Write complete SQL command to create the following Employee table.    5

**Employee**

| Field | Type |
|-------|------|
| Empid | Int(2) |
| Empname | Char(25) |
| Dept | Char(10) |
| Salary | Int(6) |
| Age | Int (2) |

3. According to given **Bank** table Write the complete SQL commands for (a) to (d)

| custid | custname | balance | credlimit | sno |
|--------|----------|---------|-----------|-----|
| 124 | Kamlesh | 41800.75 | 50000 | 3 |
| 125 | Rajesh Singh | 50000 | 49999 | 2 |
| 126 | Manish | 100000 | 70000 | 1 |
| 127 | Kamini | 54000 | NULL | 4 |

    (a) To delete the record of customer whose name is 'Manish'.    1

    (b) To Show custid, Cust name and balance.    1

    (c) To Display details of customers whose name start with the character "K"    1

    (d) To display all the record of the customers whose credit limit is null    1

4. Define My SQL.    2

5. Differentiate between SQL and MYSQL.    2

6. Write the SQL categories of the following commands:    2

   Create table, Update, Delete, describe