**Maximum Marks : 40**                                    **Time  Allowed : 2 hours**

**General Instructions:**

1. This Question Paper has 4 Sections A-D.

2. All Questions are compulsory. However, an internal choice is provided.

3. Section A has 10 questions carrying 1/2 mark each.

4. Section B has 5 Very Short Answer (VSA) type questions carrying 02 marks each.

5. Section C has 7 Short Answer (SA) type questions carrying 03 marks each.

6. Section D has 1 Long Answer (LA) type question carrying 04 marks.

## <u>Section – A (All questions are compulsory)</u>

(Each question carries 0.5 marks)

1. Which of the following is not a component of a computer?

   a) CPU                b) Mouse                c) Printer            d) Internet

2. Which type of software directly interacts with hardware?

   a) System Software   b) Application Software      c) Utility Software    d) None of these

3. The CPU consists of which of the following units?

   a) ALU and CU                          b) RAM and ROM

   c) Monitor and Keyboard                d) Hard Disk and Cache

4. Which function is used to find the average of a range in Excel?

   a) =AVG(A1:A5)      b) =AVERAGE(A1:A5)        c) =AG(A1:A5)         d) =MAX(A1:A5)

5. The default cell referencing in Excel is:

   a) Relative            b) Absolute                c) Mixed              d) None of these

6. Which type of chart is best for showing trends over time?

   a) Pie Chart          b) Bar Chart              c) Line Chart          d) Column Chart

7. What will be the output of the following Python code?

   for i in range (2, 6):

           print (i, end=" ")

   a) 1 2 3 4              b) 2 3 4 5                c) 2 3 4 5 6          d) 3 4 5 6

8. What will be the output of:

   list1 = [10, 20, 30, 40]

   print(list1[1])

   a) 10                  b) 20                      c) 30                  d) 40

9. **Assertion (A):** ROM is a volatile memory.

   **Reason (R):** ROM stores data temporarily and is erased when power is off.

   a) Both A and R are true, and R is the correct explanation of A.

   b) Both A and R are true, but R is not the correct explanation of A.

   c) A is true, but R is false.

   d) A is false, but R is true.

10.  **Assertion (A):** The WHILE loop is an entry-controlled loop in Python.

   **Reason (R):** A WHILE loop executes the body of the loop at least once before checking the condition.

   a) Both A and R are true, and R is the correct explanation of A.

   b) Both A and R are true, but R is not the correct explanation of A.

   c) A is true, but R is false.

   d) A is false, but R is true.

## Section B ((Each question carries 2 marks)

11. Explain the following terms in excel:
    a. Column     b. Cell address     c.Range     d. Cell

12. Differentiate between **Primary Memory and Secondary Memory**.

13. Explain **Cell Referencing in Excel** and write about any two types of cell referencing with examples.

14. Write a Python program to input any number any check it is positive number, negative number or neutral number.

15. Write a simple Python program to print table of any inputted number using while loop.

## Section - C ((Each question carries 3 marks)

15. What are different **types of software**? Explain any one type of software,

16. What are the different components of **a chart in Excel**? Explain them.

17. Write a Python program to input five numbers and the sum of all the numbers.

18. Define List in Python also Write a Python program to store a list of five numbers and display it.

19. Write a simple Python program to print even numbers from 1 to 10 using a for loop.

20. Explain the use of following function in Python with a suitable example
    a. append ()     b.sort( )

21. Write a Python program to input any number and find the factorial of it.

**OR**

Write a Python program to separates even and odd numbers from a list

## Section - D

### case study (4marks)

22. **Carefully observed the following worksheet and answer accordingly.**

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | Name | No. calls | Hours worked | Calls per Hour | Bonus |
| 2 | Angus | 42 | 5 | | |
| 3 | Penelope | 6 | 4 | | |
| 4 | Jethro | 39 | 6 | | |
| 5 | Mirabelle | 15 | 6 | | |
| 6 | Ophelia | 2 | 7 | | |
| 7 | Horatio | 91 | 6 | | |
| 8 | TOTAL | | | | |

Write formula /function for the following calculation

    a) Calculate calls hour by dividing No. calls by hours worked.

    b) Calculate bonus 7% of calls per hours if call per hour is more 5 otherwise make it zero.

    c) Find Total under each column.

    d) Identify the person with highest and lowest bonus.

**\*\*\*\*\*\*All the Best\*\*\*\*\*\*\***