

SAMPLE PAPER - 1

[Based on the Latest Specimen Question Paper released by CISCE]

Maximum Marks: 50

Time allowed: One and a half hours

- Answers to this Paper must be written on the paper provided separately
- You will not be allowed to write during the first 10 minutes.
- This time is to be spent in reading the question paper.
- The time given at the head of this Paper is the time allowed for writing the answers.

*Attempt all questions from **Section A** and **any four** questions from **Section B**.
The intended marks for questions or parts of questions are given in brackets [].*

SECTION - A (10 marks) (Attempt all questions)

Choose the correct answers to the questions from the given options. (Do not copy the question, Write the correct answer only):

1. (i) A group of classes in Java is called
- (a) Package (b) Function (c) Keyword (d) Literal
- (ii) Write the function prototype for the function "sum" that takes an integer variable (x) as its argument and returns a value of float data type
- (a) public float sum(int x) (b) public int sum(int x)
(c) public double sum(int x) (d) public String sum(int x)

(iii) View the following code and answer the following question

```
public class Output
{
    public static void main (String args[])
    {
        int A="26", B="100";
        String D = A + B + "200";
        int x = Integer.parseInt(A);
        int y = Integer.parseInt(B);
        int d = x + y;
        System.out.println ("Result1 = "+ D)
        System.out.println ("Result2 = "+ d)
    }
}
```

What is the output of Result1 and Result2?

- (a) 2610020, 12
- (b) 26100200, 126
- (c) 261002000, 106
- (d) 2610000, 16

(iv) In inheritance, the parent class also is known as the _____

- (a) Base class
- (b) Super class
- (c) Either (a) or (b)
- (d) None of these

(v) Which of the following is /are the correct way of declaring an array?

- (a) String[] difficultWords;
- (b) int temps[];
- (c) both (a) and (b)
- (d) None of these

(vi) What is the output of the following code?

```
String x[ ] = {"Artificial intelligence", "IoT", "Machine learning", "Big data"};  
System.out.println(x[3]);
```

- (a) Artificial Intelligence
- (b) IoT
- (c) Machine learning
- (d) Big data

(vii) _____ is the return type of endsWith().

- (a) boolean
- (b) int
- (c) char
- (d) String

(viii) The trim() method is used to :

- (a) Remove the beginning spaces of the string
- (b) Remove the ending spaces of the string
- (c) Both a and b.
- (d) None of these

(ix) Predict the output of the following

```
Math.pow(3,2) + Math.ceil(4.2)
```

- (a) 15.0
- (b) 14.0
- (c) 13.0
- (d) 12.0

(x) What is the other name of encapsulation?

- (a) Information hiding
- (b) Information processing
- (c) Information storing
- (d) Information reusing

SECTION – B (40 Marks)
(Attempt any four questions)

2. Define a class in Java to input a sentence and convert it into uppercase and count and display the total number of words starting with a letter 'A'.

Class Name: WordsInSentence

Example:

Sample Input: ADVANCEMENT AND APPLICATION OF INFORMATION TECHNOLOGY ARE EVER CHANGING.

Sample output: Total numbers of words starting with letter 'A' - 4.

3. Define a class with the name volume using function overloading that computes the volume of a cube and cuboid.

Volume of a cube (vc) = $s*s*s$

Volume of a cuboid (vcd) = $l*b*h$

4. Define a class to input and sort the weight of ten people. Sort and display them in descending order using the selection sort technique.

5. Define a class to reverse the array without using temporary variable.

6. Define a class to store 6 element in an array P, and 4 elements in an array Q and produce a third array R, containing all elements of array P and Q. Display the resultant array. Example:

Input / Output :-

P[]	Q[]	R[]
4	19	4
6	23	6
1	7	1
2	8	2
3		3
10		10
		19
		23
		7
		8

7. The annual examination results of 50 students in a Class is tabulated as follows:

Roll no, subject A, subject B, subject C

....

Define a class to read the data, calculate and display the following:

- (a) Average mark obtained by each student.
- (b) Print the roll number and average mark of all the students whose average mark is above 80.
- (c) Print the roll number and average marks of the students whose average mark is below 40.