



**DELHI PUBLIC SCHOOL NEWTOWN**  
**SESSION 2024-25**  
**MONDAY TEST**

**CLASS: IX**  
**SUBJECT: COMPUTER APPLICATIONS**

**TOTAL MARKS: 40**  
**DATE: 17.5.24**

**Instructions:**

The Question Paper comprises of Two Parts. Part-I is based on Multiple Choice Questions and Application questions. Part -II is based on Java Programs. The intended marks for questions are given in brackets [ ]. This paper consists of three printed pages.

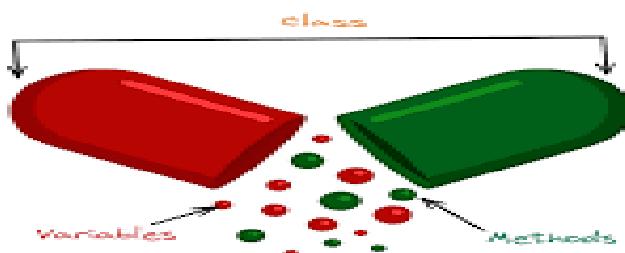
**PART-I (20 marks)**  
**[Attempt all question]**

**Question 1**

Choose the correct answer from the choices given:

**[6×1=6]**

- i) If  $a=5$  and  $b=9$ , find value of :  $a += a++ - ++b + a$   
a) 6      b) 5      c) 4      d) 1
- ii) What is the number of bytes occupied by float and int data types?  
a) 8,4      b) 4,8      c) 8,8      d) 4,4
- iii) Predict the output: `System.out.println("Incredible" + "\n" + "world");`  
a) "Incredible"      b) Incredible      c) error      d) "Incredible world"  
"world"
- iv) Which concept of OOP is shown in the picture given below:



- a) Polymorphism      b) Inheritance      c) Abstraction      d) Encapsulation
- v) Choose the odd one out:

- a) String      b) char      c) float      d) double

vi) Predict the output:

```
System.out.println("My");
System.out.print("favorite subject is");
System.out.println("Computer Applications");
```

- a) My favorite subject is Computer Applications
- b) My  
    favorite subject is  
    Computer Applications
- c) My  
    favorite subject isComputer Applications
- d) My  
    favorite subject is Computer Applications

## Question 2

[7x2=14]

- a) What is the default value of float and boolean data type in java?
- b) Write a java statement to create an object “orange” of the “Fruit” class.
- c) Identify the difference between a=5 and a==5?
- d) Evaluate the value of n, if p=5 and q=19, also determine the data type of n:

$$n = ((p - q) > (q * p) \parallel (q - 14) < (p + (-2)))$$

- e) Write java expressions of the following mathematical expression:

$$\left(\frac{B^3 + C^2}{2S}\right) h^2$$

- f) State the final value of ‘ch’ after execution of the following java statements. Also state what type of conversion is occurring in the last statement.

```
char s = 'd';
```

```
int m = s+5;
```

```
char ch = (char)m;
```

- g) Predict the output of the following code segment:

```
char x = 'A'; int y;
```

```
y = (x == 'a') ? 'A' : 'a' ;
```

```
System.out.println("y=" +y);
```

PART-II (20 marks)

*[Attempt all questions. Each program should be written using Variable descriptions/Mnemonic Codes so that the logic of the program is clearly depicted]*

**Question 3**

**[5+5]**

**Write two separate java programs:**

- i) Write a program to input two unequal numbers. Display the numbers after swapping their values in the variables without using a third variable.

**Sample Input: a = 23, b = 56**

**Sample Output: a = 56, b = 23**

- ii) A shopkeeper offers 10% discount on the printed price of a Digital Camera. However, a customer has to pay 6% GST on the remaining amount. Write a program in Java to calculate the amount to be paid by the customer taking printed price as an input.

**Discounted price = printed price – (printed price of discount )**

**GST = (Discounted price of GST ).**

**Amount payable = Discounted price + GST .**

**Question 4**

**[10]**

**Write a program in Java to accept a 3 digit number. Find the sum of square of first and third digit. Also find the difference between the sum and the middle digit. Display all the 3 digits in a tabular format.**

**Example:**

**Sample input: 489**

**sum =  $4^2 + 9^2$**

**difference = sum – 8**

**Sample output: 4        8        9**