



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 world" b) Incredible world c) error d) “Incredible 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