



DELHI PUBLIC SCHOOL NEWTOWN
SESSION 2021-22
MONDAY TEST

CLASS: IX
SUBJECT: COMPUTER APPLICATIONS

FULL MARKS: 40
DATE: 01.11.2021

Instructions:

- Attempt all questions.
 - The question paper consists of two printed pages.
 - Answer should be to the point.
 - VDT should be written with the program.
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Question 1 [2x5=10]

- a. With the help of an example, explain the use of labelled break statement.
- b. Explain the following statement: - public static void Abc()
- c. Define package in Java. Name the default package in java.
- d. Write the syntax of the loop which is used for unfixed number of iteration and the condition appears at the end of the loop.
- e. Distinguish between local variable and instance variable.

Question 2

- a. Identify the type of loop and write one purpose of using it in the program: [2]
for(r=20; r<500; r++);
- b. How actual parameters are different from formal parameters. [2]
- c. Write the method prototype of a method that receives two numbers and returns true or false. [2]
- d. Predict the output of the following code snippet: [4]
class Main {
 public static void main() {
 int sum = 0;
 int n = 1000;
 for (int i = n; i >= 1; i=i/10) {
 System.out.println(i+" ");
 sum = sum + i;
 }
 System.out.println("Sum = " + sum);
 }
}

Question 3**[10]**

Write a class with the name *Area* using the following functions that computes the area of a parallelogram, a rhombus and a trapezium.

1. **void parallelogram(float base, float ht):** to compute area of a parallelogram ,
where area of parallelogram (pg) = base * ht [ht is height]
2. **void rhombus(double d1, double d2):** to compute area of a rhombus,
where area of rhombus (rh) = (1/2) * d1 * d2 [d1 and d2 are the diagonals]
3. **void trapezium(int a, int b, int h):** to compute area of a trapezium,
where area of trapezium (tr) = (1/2) * (a + b) * h
[a and b are the parallel sides, h is the perpendicular distance between the parallel sides]

Also, write the main method to implement the functions.

Question 4**[10]**

Write a menu driven program in Java to accept a number and perform the following operations depending on the user's choice:

- i. To check whether the entered number is a Buzz number or not.
- ii. To find and display the factorial of the entered number.

[Note: A Buzz number is a number which is either divisible by 7 or has 7 in its unit's place.

Factorial Program in Java: Factorial of n is the product of all positive descending integers. Factorial of n is denoted by n!. For example:

$$4! = 4 \times 3 \times 2 \times 1 = 24$$

$$5! = 5 \times 4 \times 3 \times 2 \times 1 = 120]$$