



DELHI PUBLIC SCHOOL NEWTOWN
SESSION 2021-22
MONDAY TEST

CLASS: IX
SUBJECT: COMPUTER APPLICATIONS

FULL MARKS: 40
DATE: 21.06.2021

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. How is Encapsulation useful in Object Oriented Programming? Explain with the help of a real life example.
- b. Describe the components of the given statement:- Rainbow rw=new Rainbow();
- c. Give an example of Polymorphism that you see around you.
- d. State the storage sizes of the following data types: *long, float, char and double*.
- e. Distinguish between the following:
 - i. 'A' and "A"
 - ii. = and ==

Question 2 [2x5=10]

- a. Write the equivalent Java expression for the given equation $S= ut+1/2at^2$
- b. Java program uses compiler as well as interpreter. Explain.
- c. Consider a real world object as 'Cricket Ball'. Mention two attributes and two methods by taking the 'Cricket Ball' as a software Object.
- d. What kind of literals are the following:
0x5a3 , 45L , -234.67, "true"
- e. What is the difference between / and % operator?

Question 3 [5+5]

- a. The angles of a quadrilateral are in the ratio 3:4:5:6. Write a program to find and display all of its angles.

[Hint: The sum of angles of a quadrilateral = 360°]

- b. Write a program to input the time in seconds. Display the time after converting them into hours, minutes and seconds.

Sample Input: Time in seconds: 5420

Sample Output: 1 Hour 30 Minutes 20 Seconds

Question 4

[10]

Write a program by using class 'Employee' to accept Basic Pay of an employee.

Calculate the allowances/deductions as given below.

Allowance / Deduction	Rate
Dearness Allowance (DA)	30% of Basic Pay
House Rent Allowance (HRA)	15% of Basic Pay
Provident Fund (PF)	12.5% of Basic Pay

Find and print Gross and Net pay with all types of allowances/deductions

[Hint: Gross Pay is the sum of Basic Pay , DA and HRA

Net Pay is calculated by deducting PF from Gross Pay]