Day : Wednesday
Date 16-02-2022

Time : 10:00 AM-01:00 PM
Max. Marks: 80

W-5356-2021

N. B. :

1) Attempt **ANY FOUR** questions from Section – **I** and attempt **ANY TWO** questions from Section – **II**.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer books.

SECTION – I

Q. 1 What is Constructor? Explain type of constructors available in C++ with example. **(12)**

Q. 2 Explain String and Math Classes from java.lang package. **(12)**

Q. 3 Briefly describe the following classes: **(12)**
  a) Vector
  b) HashTable

Q. 4 What is Polymorphism? Explain its types. **(12)**

Q. 5 Explain following terms: **(12)**
  a) Encapsulation
  b) Interface
  c) Virtual function

Q. 6 Write short notes on **ANY TWO** of the following: **(12)**
  a) Friend function
  b) DataInputStream and DataOutputStream
  c) Layout Manager in Java

SECTION – II

Q. 7 Write Java Applet to read a name of organization as Applet parameter and display it as banner, which moves from right to left. Make use of thread to move banner. **(16)**

Q. 8 Write a Class 'Student' with attributes like roll_no, name, marks_sub1, marks_sub2, and marks_sub3. With necessary constructors and methods use it to create instance. Also perform operations like read and display. **(16)**

Q. 9 Write a Class Date to represent a calendar date and write methods to be used on it. Also overload operators +, -, ++ and -- to perform operations on it. **(16)**

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