M 25136

Reg. No. : ....

Name : ....

II Semester M.A./M.Sc./M.Com. Degree (Reg./Sup./Imp.) Examination, March 2014
MATHEMATICS
Paper – IX : Computer Programming in C++

Time: 2 Hours

Max. Marks : 36

Instructions : *Part – **A** : Answer **any three** questions. **Each** question carries **3** marks.*
*Part – **B** : Answer **any three** questions without omitting any Unit. **Each** question carries **9** marks.*

PART – A

Answer **any three** questions. **Each** question carries 3 marks.   (3×3=9)

I. a) Write a note on constructor and parameterized constructor.

    b) What are the basic concepts used in object-oriented programming ?

    c) What is meant by nesting of member function ? Explain.

    d) Write a note on friend function.

PART – B

Answer **any three** questions without omitting **any** Unit. **Each** question carries
9 marks.   (3×9=27)

UNIT – I

II. a) Explain virtual function and pure virtual function.

     b) Explain static and dynamic allocation of memory.

     c) Write a C++ program to check whether the given string is palindrome or not.

III. a) What is meant by derived constructor ? Explain.

      b) Explain the memory management operators used in C++.

      c) Write a C++ program to find the area of a square, circle and cylinder using function overloading

UNIT – II

IV. a) What is meant by default constructor ? Explain.

   b) Explain containership with suitable example.

   c) Write a C++ program to print a = 5 and b = 10 using copy constructor.

V. a) What are the differences between object based programming language and object oriented programming language.

   b) Explain multilevel inheritance and multiple inheritance.

   c) Write a C++ program using function overloading. Concontination of two strings, addition of 2 integer values and sum of 3 float values by overloading add function.

UNIT – III

VI. a) What is an inline function ? Explain its use.

   b) Explain the advantages of pass by reference over pass by value.

   c) Write a C++ program to print employees personal details (name and address), bank details (account-number and balance) using hierarchical inheritance.

VII. a) Describe call by reference and return by reference.

   b) Differentiate function overloading and operator overloading.

   c) Write a C++ program to print the values assigned to two variables a and b using implicit and explicit call of variables.