Total No. of printed pages = 7

RETEST EXAMINATION, 2019

Semester : 5th (Old)

Subject Code : CO-506

OBJECT ORIENTED METHODOLOGY

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks for the questions.

Instructions :

1. Questions on PART–A are compulsory.
2. Answer any *five* questions from PART–B.

PART – A

Marks – 25

1. Fill in the blanks : 1×10=10

   (a) C++ language is case _____.

   (b) The smallest individual unit in a program is known as _____.

[Turn over

(c) A _____ is like a blueprint for an object.

(d) Fundamental data types may be used to construct _____ data types.

(e) _____ is a predefined object that represent the standard output stream in C++.

(f) A _____ variable must be initialized at time of its declaration.

(g) _____ is defined as wrapping up of data and information under a single unit.

(h) A _____ operator is used to group together several expression.

(i) _____ returns the size of a variable in bytes.

(j) _____ data type cannot be used to declare variables in C++.

2. Write true or false : 1×10=10

(a) OOM tends to object oriented methodology.

(b) Data abstraction is not a features of object-oriented programming.

(c) Message passing involves specifying the name of the object.

(d) It is not possible to achieve inheritance of structures in C++.

(e) Super classes are also called parent classes/ base classes.

(f) A class can serve as base class for many derived classes.

(g) The declaration

int x ;

int &p=x ;

is same as the declaration

int x,*p ;

p=&x ;

This remark is

(h) Operator overloading is a mechanism of static polymorphism.

(i) A constructor can be virtual.

(j) Class template is a generic class.

3. Choose the correct answer : 1×5=5

(a) Which of the following type of class allows only one object of it to be created ?

(i) Virtual Class (ii) Abstract Class

(iii) Singleton Class (iv) Friend Class

(b) When two or more classes serve as base class for a derived class, the situation is known as _____.

(i) Multiple inheritance

(ii) Polymorphism

(iii) Encapsulation

(iv) Hierarchical inheritance

(c) Multiple inheritance leaves room for a derived class to have _____ members.

(i) Dynamic (ii) Private

(iii) Public (iv) Ambiguous

(d) Which of the following is not the member of class ?

(i) Static function (ii) Friend function

(iii) Const function (iv) Virtual function

(e) Reference is not same as pointer because

(i) A reference can never be null.

(ii) A reference once established cannot be changed.

(iii) Reference doesn't need an explicit dereferencing mechanism.

(iv) All of these.

PART – B

Marks – 45

4. (a) What is OOP ? Explain the basic concepts of OOP. 5

(b) What are the features of object oriented programming ? 4

5. (a) Explain the structure of C++ program. 4

(b) Write a program to explain the concept of array of objects. 5

6. (a) Define Encapsulation and Data hiding. 4

(b) Define Token. What are the tokens used in C++ ? 1+4=5

7. (a) Explain the different types of polymorphism. 4

(b) Explain various types of Inheritance. 5

8. (a) What is the need for template function in C++ ? What are their advantages ? 5

(b) What is Function Template ? What are the components of Exception Handling ? 4

9. Answer any *nine* of the following : 1×9=9

(i) Define object.

(ii) Define data abstraction.

(iii) Define data members.

(iv) Define abstract class.

(v) Define derived class.

(vi) Define function overloading.

(vii) Define friend function.

(viii) Define member functions.

(ix) Define polymorphism.

(x) Define message passing.