Total No. of printed pages = 3

Co-506/OOM/5th Sem/2014/N

OBJECT ORIENTED METHODOLOGY

Full Marks – 70

Pass Marks – 28

Time – Three hours

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

Answer question No. 1 and any *five* from the rest.

1. Answer the following short questions : 5×2=10

   (a) Explain the use of ">>" operator.

   (b) What do you mean by abstract data type ?

   (c) Define multiple inheritance.

   (d) State the meaning of abstract class.

   (e) What is friend function ?

2. (a) Compare break and continue statements. 3

   (b) Compare constructor and destructor functions. 3

   (c) Define run time polymorphism and compile time polymorphism and compare them. 6

[Turn over

3. (a) What is virtual function ? When it is called pure ? State any five rules of using virtual function. 2+2+5=9

(b) List the operators which cannot be overloaded. 3

4. (a) Write a c++ program to create one base class "employee" having fields :

name, basic, hra, da and one derived class "sales" having fields = total-sale, bonus, incentives.

If monthly total-sale is more than 1,50,000/- then bonus = 1500/- and incentives = 10% of total-sale ; otherwise bonus = 1000/- and incentives = 5% of total-sale.

Assume appropriate member function and find amount obtained by the employee. 10

(b) Define reference variable. 2

5. (a) Define copy constructor. 2

(b) Define class and member function template. 4

(c) How can you overload '+' 'operator for adding two distances show by using a c++ program. 6

6. (a) State how to use static members. 3

(b) What is the use of 'this' pointer ? 3

(c) Write down the rules of giving friend function. 6

7. Write short note on any *three* : 4×3=12

(a) Online function

(b) Dynamic constructor

(c) Hierarchical inheritance

(d) Advantages of operator overloading.