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 number 1 and any *four* from the rest.

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

   (a) Define ADT.

   (b) Describe polymorphism.

   (c) Define inheritance.

   (d) Compare structure and class.

   (e) 'cin' and 'cout' are belonging to which header file ?

[Turn over

2. (a) Explain a friend function with the help of an example which is used to access the private member of another class. 5

(b) Define constructor and destructor. Explain different types of constructor function.

$$4+6=10$$

3. Write a C++ program to create a class 'Bank' with constructor : Bank ( ) and 15 member functions : deposit ( ), withdraw ( ) and display ( )

Implement the class by creating objects by using all the member functions.

4. Compare compile time polymorphism and run time polymorphism.

How they are implemented ? Give example for both. $5+6+4=15$

5. (a) Describe the use of virtual function. 3

(b) State the concept of operator overloading.

3

(c) Compare hierarchical and multiple inheritance.

3

(d) State any three rules of operator overloading and virtual function. 3+3=6

6. Write short notes on any *three* : 3×5=15

(a) Error handling in C^{++}

(b) Abstract class and pure virtual function

(c) Function overloading

(d) Features of OOP.