

Sample Question Paper – I

9036

Course Name :- Computer Engineering Group
Course code :- CO/CM/IF/CD
Semester :- Third
Subject :- Object Oriented Programming
Duration :- 3 hours

Marks: 80

Instructions : 1] All questions are compulsory.
2] Figures to the right indicates full marks.
3] Use of non-programmable calculator is permissible.

Q 1: Attempt any Eight of the following: (2 x 8 = 16)

- List the features of Object oriented programming.
- Draw the structure of a c++ program.
- What is dynamic memory allocation?
- Describe the term – Object.
- Define Constructor.
- What is operator overloading?
- Enlist the operators that can not be overloaded.
- How to initialize a pointer?
- What is a pure virtual function?
- Why do we need virtual function?

Q 2 : Attempt any THREE of the following : (4 x 3=12)

- Describe the syntax of multilevel inheritance.
- What is an abstract class? Explain with suitable example.
- Compare overloading and overriding with examples.
- Find error and give its justification for following overloaded function

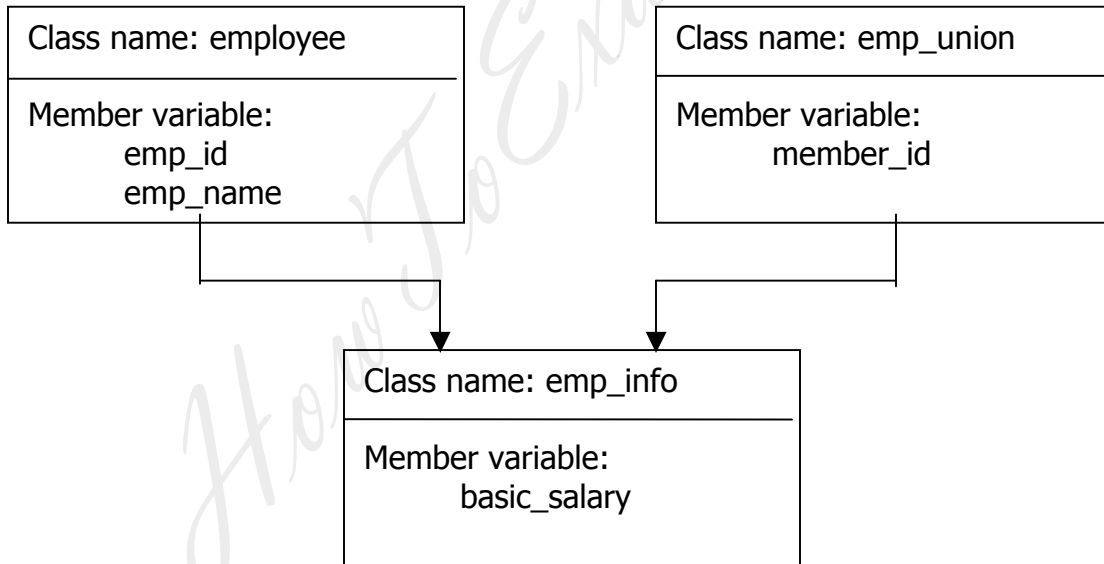
```
void f(int *p)
void f(int p[])
```

Q 3 : Attempt any THREE of the following : (4 x 3=12)

- a) Explain the concept of 'this' pointer.
- b) Write a program to swap two integer values by using call by reference.
- c) What is runtime polymorphism
- d) Write a program to illustrate the concept of parameterized constructor.

Q 4 : Attempt any TWO of the following: (8 x 2=16)

- a) Write a program to declare a class 'employee', consisting of data members emp_no, and emp_name. Write the member functions accept() to accept and display() to display the data for 5 employees.
- b) Write a program to find the length of a string using operator overloading.
- c) Write a program to implement the inheritance as shown in figure.
Assume suitable member function to accept and display data.



Q 5 : 1) Attempt the following : (4 x 1=4)

- a) In procedure oriented programming all data are shared by all functions. Is this statement TRUE? Justify your answer.

2) Attempt any ONE of the following : (8 x 1=8)

- a) Write a program to count the number of characters in a word using

pointer to string.

- b) Write a program to count the number of lines, spaces and tabs in a file.

Q 6 : Attempt any THREE of the following :

(4 x 3=12)

- a) Find errors, if any, from the following code –

```
#include<iostream.h>
class xyz
{
    private:
        int d1;
        float d2;
    public:
        void xyz ();
        void display ();
};
void main ()
{
    xyz s;
    s.showdata ();
}
```

- b) Give syntax and use of following with respect to file.
- i. Open()
 - ii. Close()
- c) Explain stream classes and give stream classes for console operation.
- d) What is the difference between opening a file with constructor function and opening a file with open() function.