

Object Oriented Programming



Time: 3 Hrs.]

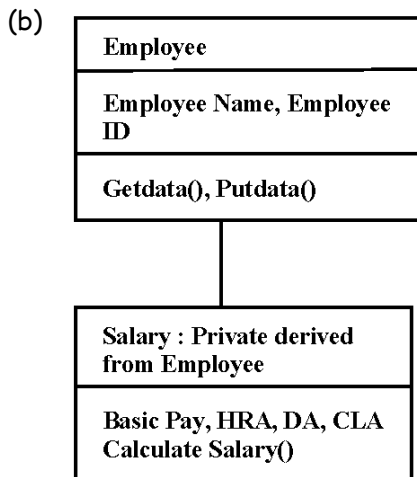
Prelim Question Paper

[Marks : 70

1. Attempt any **FIVE** of the following : [10]
- (a) Explain how to define a function outside the class definition.
 - (b) Explain the concept of Static Data Members (no C++ program needed).
 - (c) Explain the concept of destructor (no C++ Program needed)
 - (d) List the areas of application of OOP.
 - (e) Describe the structure of a C++ program (with diagram).
 - (f) Explain the concept of identifiers.
 - (g) List some languages that use OOP.

2. Attempt any **Three** of the following : [12]
- (a) Explain copy constructor with example.
 - (b) Write a C++ Program to swap two numbers using pointers.
 - (c) Draw a diagram showing the basic data types in C++
 - (d) What is a friend function? What are its characteristics? (No C++ program needed)

3. Attempt any **Three** of the following : [12]
- (a) Write a C++ program that replaces the string "Computer" in the String "Diploma in Computer Engineering" with string "Information Technology".



Define classes to appropriately represent class hierarchy as shown in above figure. Use constructors for both classes and display Salary for a particular employee.

(c) Define a class named 'Train' representing following members:

Data members :

- Train Number
- Train Name
- Source
- Destination
- Journey Date
- Capacity

Member functions :

- Initialise members
- Input Train data
- Display data

Write a C++ program to test the train class.

(d) Write a C++ Program to copy a file abc.txt into another file xyz.txt

4. Attempt any **Three** of the following : [12]

- Write a program to implement single inheritance.
- Write a program to implement multilevel inheritance.
- Write a C++ program to implement multiple inheritance.
- Explain the benefits of OOP.
- Write a C++ program to show an example of implementation of Destructors.

5. Attempt any **TWO** of the following : [12]

- Explain the characteristics of constructors.
- Write a C++ program to display number of objects created using static member.
- Explain the concept of memory allocation for objects.

6. Attempt any **TWO** of the following : [12]

- Define Operator Overloading. Write a C++ program to implement Unary Operator Overloading.
- Write a C++ Program to implement Constructor in Derived Class.
- Explain arithmetic operations on pointers. Write a C++ Program to show these operations.



S.Y. Diploma Sem-III: Paper Discussion Schedule

Branches	Date	Day	Timing	Centres
Computer Group	8 Nov. 2018	Thursday	9 a.m. to 11 a.m.	Thane
	9 Nov. 2018	Friday	9 a.m. to 11 a.m.	Borivali, Dadar