

# AMIT-07 OBJECT ORIENTED PROGRAMMING

## UNIT-1 OBJECT ORIENTED TECHNOLOGY

- 1.1 Comparison with procedural programming (C and C++),
- 1.2 key concepts of object programming,
- 1.3 Input and output in C++, declarations,
- 1.4 Control structures,
- 1.5 Functions

## UNIT-2 CLASSES AND OBJECTS

- 2.1 Declaring objects,
- 2.2 Accessing member variables,
- 2.3 Defining member functions,
- 2.4 Inline functions, static member variables and functions,
- 2.5 Friend function, overloading,
- 2.6 Constructors and destructors,
- 2.7 Overloading constructors,
- 2.8 Copy constructors anonymous objects,
- 2.9 Dynamic initialization using constructors,
- 2.10 Dynamic operators and constructors,
- 2.11 Recursive constructors encapsulation

## UNIT-3 INHERITANCE

- 3.1 Types of inheritance,
- 3.2 Virtual base class,
- 3.3 Abstract class,
- 3.4 Advantages and disadvantages of inheritance,
- 3.5 Pointers and arrays,
- 3.6 C++ and memory Module IV Binding,
- 3.7 Polymorphism and virtual functions,
- 3.8 Generic programming with templates,
- 3.9 Exception handling,
- 3.10 String handling and file handling

### References Book:

1. Object oriented programming with ANSI and TURBO C++, Ashok N Kamthane, Pearson education 7th impression 2009.
2. Object oriented programming with C++ M.P.Bhave, S.A.Patekar, and Pearson Edn.
3. "Object Oriented Programming in C++" Robert Lafore, 4/e Pearson Edn.
4. Programming a Practical Approach, Madhusudan Mothe, Pearson Edn
5. C++ Programming :From Problem Analysis To Program Design, Malik, Thomson Learning