

**Object Oriented Programming with C++****Unit-1**

Introduction:- Programming Language generations, Object Oriented Paradigm, Basics of OOPs, Benefits, Applications of OOPs, Object Oriented Languages, Difference between OOPs and Procedure Oriented Programming

**Unit - 2**

Introduction to C++, General Structure of a C++ program, cin and cout objects, Keywords, identifiers, Constants, variables, Data types in C++, Operators-scope resolution operator, Control structures: Conditional statements and Looping statements, Functions –function with default arguments, inline functions, function overloading, reference variables Arrays - Single and multidimensional arrays.

**Unit-3**

Object and Classes-Structure and Class, Defining a class, defining member functions, member function with object as arguments and argument as return type, array of objects, static member data and member function, friend function and friend class.

Constructor and destructors-characteristics of constructor, constructor types-default, parameterized, copy and dynamic, constructor overloading.

**Unit-4**

Operator overloading, defining operator function, overloading unary, binary and relational operators

Inheritance-benefits of inheritance, types of inheritance, methods overriding, virtual functions.

**Unit- 5**

C++ Streams and File handling-Stream class, unformatted i/o operations, formatting of output- ios class functions and flags, manipulators, Files-File classes, file types, file functions.

Error handling, command-line arguments

**Reference Books**

1. Object Oriented Programming with C++ - M.T. Somashekara, D.S.Guru, H.S. Nagendraswamy, K.S. Manjunatha, PHI 2nd Edition
2. Object Oriented Programming with C++ - E. Balagurusamy, 4th Edition, Tata Mc Graw Hill Publication
3. Object Oriented Programming in C++ - Robert Lafore, 4th Edition, Pearson Education
4. Object-Oriented Programming with ANSI and Turbo C++.

Dr. P. S. S.

Ms. S. S. S.  
13/12/16  
13/12/16



B.Sc II year II Semester

Object Oriented Programming with C++

Time: 3 Hrs

Max. Marks: 75

SECTION - A

1. Answer any 5 Questions :

5 x 5 = 25 M

- Define class and its scope.
- Define operators and its types.
- What is polymorphism and advantages.
- Difference between if and switch.
- Explain ios class function statements.
- What is destructor? How to Define?
- Explain multi-Dimension array.
- List the Error handling functions in 'C++'.
- Explain unary operators in C++.
- Explain member functions in C++ ?

SECTION - B

Answer one question from each unit. Each carries equal marks:

5 x 10 = 50 M

UNIT- I

- What is OOPs? Explain the advantages and applications of OOPs.  
(or)
- Write the difference between OOPs and Procedure Oriented Programming.

UNIT- II

- Define cin and cout statements with suitable example.
  - Explain different data types in C++.  
(or)
- Describe functions with suitable example.

UNIT- III

- What is an object? Explain how the class is defined?  
(or)
- What is constructor? How the constructors are created with suitable example.

UNIT- IV

- What is operator overloading? Define binary and relational operators.  
(or)
- What are the benefits of inheritance? How the virtual functions are created with suitable example.

UNIT - V

- Explain C++ streams and their types.  
(or)
- Explain the file classes and its functions.

Dr. P. S. S.

Ans. B.S. 13/12/16  
17.8.20 13/12/16