### FYBSc (I.T.) OOP QUESTION BANK

## Unit -I

Write down advantages and disadvantages of procedure oriented language.

Explain dynamic binding with example.

Write down the benefits of using OOPs.

Write a short note on Data abstraction and data encapsulation.

Difference Between Procedure Oriented Programming (POP) & Object Oriented Programming (OOP)

Explain any two operators with suitable example.

Explain in detail types of Error in C++

State and explain any two decision making statements.

Explain For Loop with suitable example.

Explain While Loop with suitable example.

Explain Do-While Loop with suitable example.

Explain the concept of Object oriented programming

Differentiate between POP AND OOP

Explain the benefits of OOP

List the advantages of Procedure oriented programming

What are the applications of OOP

Explain data encapsulation with example

Define the following terms:

I)Class ii)object iii)Data Encapsulation iv)polymorphism v)inheritance

Explain the principals of OOP

Discuss the advantages of POP

What is procedure oriented programming ?What are its characteristics?

Explain the applications of OOP

List the disadvantages of Procedure Oriented Programming

What is object oriented development?

Explain the concept of inheritance and polymorphism.

What are the advantages of OOP over POP

List the different types of operators?Explain arithmetic operator

Explain the basic structure of CPP program

Define constant and variable .? Differentiate between constant and variable

### Unit -II

What is inline function ? explain with example .

What is use of constructor? Explain with example.

Write C++ program to demonstrate the use of constructor and destructor.

Explain following concept with syntax and suitable example.

- 1. Class
- 2. Object

Explain access specifier in C++ with syntax.

What is function? Define types of function.

Explain Function Arguments in C++

What is friend function? Write a friend function to display mark sheet of the F. Y. B. Sc. IT student.

What is class? Explain how objects are passed as argument to member function and objects are returned from member function.

What is inline function? Explain with example.

What is constructor ? Explain with example.

Write a C++ program to demonstrate the use of constructor and destructor.

What is constructor ?Explain its types.

What are the different ways to define the function in the class.

Explain the concept of friend function with example

Differentiate between constructor and destructor function

Discuss the concept of parameterized constructor with example

Design a class student containing getdata() and displaydata() as two of its methods which

will be used for reading and displaying the student information respectively.where

getdata() will be private method

a)List the characteristics of constructor

Discuss the copy constructor with example

what is destructor explain with example

How class and object and be created give an example.

What do you understand by friend function explain

Write a friend function for adding two complex numbers using a single classExplain the concept of constructor overloading with exampleWhat is the use of friend function.explain its featuresDescribe the concept of pointer to object.Design a class geometry containing the method area() and volume()and also show the use of constructorHow private data of the class can be accessed outside the class illustrate with example.

define class and object with its syntax and example

# UNIT – III

What is function overloading? Explain with example.

What is method overriding? Explain with example.

What is Virtual Function ? Explain with example.

What is operator overloading? Write down the rules for operator overloading.

Sate difference between compile time and run time polymorphism.

Explain types of overloading in detail.

Explain virtual destructor. Give suitable example. Explain the concept of function overloading with example How dynamic binding is implemented by virtual and pure virtual function What is the use of static keyword with respect to function Define the following term Polymorphism ii)Function overloading iii)Abstract class Explain the binary operator overloading with example Design a class staticDemo to show the implementation of static variable and static function. What is operator overloading? Write the rules of operator overloading. Explain virtual destructor .Give suitable example Explain virtual base class & abstract class with example How will you implement the concept of Polymorphism Give an example to implement the unary operator overloading Show the use of virtual function with example. Explain with example the concept of this keyword Illustrate comparison operator overloading with example Write note on static keyword Overload the + for concatenating the two strings. For e.g "Py" + "thon" = Python is the need of virtual function? With an example, explain overriding of Member function of base in derived class? Explain Calling a Virtual Function Through a Base Class References

#### $\mathbf{UNIT} - \mathbf{IV}$

Can private members of a base class are inheritable? Justify.

Explain with example multilevel inheritance

Explain with example multiple inheritance

Explain with example hierarchical Inheritance.

Explain how a base class is derived in public and private mode.

Write a C++ program to implement hierarchical inheritance.

What is an exception? Explain How to handle exceptions?

What is exception? Explain exceptions handling mechanism?

What happen when raised exception is not caught by catch block? Explain with suitable example.

Design a class for multiple inheritance

Design a class for single level inheritance using public and private type derivation.

Implement the concept of method overriding

Write a C++ program demonstrating use of the pure virtual function with the use of base and derived classes

Define inheritance. with its types.

What are the advantages of inheritance

Explain the concept of exception handling

Implement the hierarchical inheritance

Show the implementation for exception handling for strings

Implement the concept of method overriding.

Explain different types of inheritance with block diagram and an example for each

Discuss with examples, the implications of deriving a class from an existing class by the 'public'and'protected' access specifiers.

What is inheritance? How to inherit a base class as protected? Explain it in Multiple base classes?

With an example explain, multiple base class inheritance?

Define exception handling. Explain the use of try, catch and throw for exception handling in C++.

Explain the C++ style solution for handling exceptions

## $\mathbf{UNIT} - \mathbf{V}$

Explain with example how function templates are used.

Explain with example how class templates are used.

Explain how compiler calls to a class and function template.

Write a C++ program which defines and uses student class template.

What is file? Write down the steps for manipulating files in C++.

Explain the hierarchy of file stream class.

What are different methods of opening a file? Write a program to open file and enter student details into the file using any method.

What are the methods available for opening the files?

What are the advantages of using generic algorithm?

What is STL?

Design the template class library for sorting ascending to descending and vice versa

Design a class FileDemo open a file in read mode and display the total number of words and

lines in the file

What are class templates.? How are they created? What is the need for class templates?

Create a template for bubble sort functions Explain the class template Explain C++Stream Classes. Write a program to write a generic function or template and demonstrate addition of multiple types of data using the same Explain the use of ifstream and ofstream classes for file input and output. Design a editor for appending and editing the files How class templates are created ? What is the need for class templates? Create a template for bubble sort functions Explain the Standard Template Library and how it is working? What is Function Template? Explain File operations Explain with example how can a class template be created Design a class to handle multiple files and file operations Show the implementation of template class library for swap function