### BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY

#### **Unit Test-I**

Programme: - CM/IF

Semester: - III Course: - Object Oriented Programming using C++ (22316)

#### UNIT -I

### (Principles of Object Oriented Programming.)

- CO a) Develop C++ programs to solve problems using Procedure Oriented Approach.
- Q.1 List any four object oriented languages. (2M)
- Q.2 Write any four features of object oriented programming. (4M)
- Q.3 Differentiate between POP and OOP. (4 points) (4M)
- Q.4 State any four application of object oriented programming. (2M)
- Q.5 Explain insertion and extraction operators. (4M)
- Q.6 What is Data abstraction? (2M)

### UNIT -II

### (Classes and Objects)

#### CO b) Develop C++ programs using classes and objects.

- Q.7 Define class with it's syntax. (2M)
- Q.8 Write any four rules to define constructor in a class. (4M)
- Q.9 What is destructor? Give it's syntax. How many destructors can be defined in a single class?(4M)
- Q.10 Write a program to declare a class staff having data members as name and post. Accept and display data for five staff members. (Using array of object). (4M)
- Q.11 How many ways we can define member function in class? Give it's syntax. (4M)
- Q.12 Differentiate between structure and class. (4M)
- Q.13 Explain constructor with default argument. (4M)

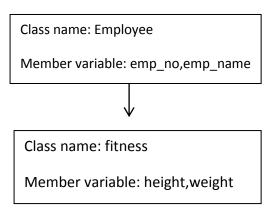
- Q.14 Write a program to declare a class student consisting of data member stud\_name and Roll\_no. Write program with member function accept() to accept and display() to display the data for four students.(4M)
- Q.15 Explain how memory is allocated to objects of a class. (4M)
- Q.16 Write a program to declare a class 'student' having data members as name and percentage. Write a constructor to initialize these data members accept and display data for one student.
- Q.17 Differentiate between constructor and destructor. (4M)
- Q.18 Define friend function. Write syntax of declaring it. (4M)
- Q.19 Write a program to create a class "student" having data member as name, roll no. and percentage to read and display details for 10 students. (4M)
- Q.20 Explain: (i) Static member function (ii) Friend function.(4M)
- Q.21 Explain the concept of parameterized constructor with example. (4M)
- Q.22 Write a program to show use of passing object as a parameter to function showdata () for a class "student" having data member as name and roll no. & member function as getdata (). (4M)

# **UNIT-III**

### (Extending classes using Inheritance)

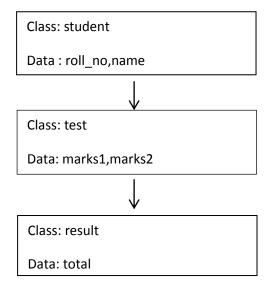
## CO c) Implement Inheritance in C++ program.

Q.23 Write a program to implement inheritance as shown in Fig. 1. Assume suitable member function. (4M)



 ${\bf Q.24~Write~a~program~to~implement~inheritance~as~shown~in~Fig.2~Assume~suitable~member}$ 





Q.25 What is inheritance? Why inheritance used in C++? (4M)