**SardarVallabhbhai Patel Institute of Technology- Vasad.**

**Practical Lesson -Seminar Execution Sheet**

**Name:** Viral Patel/Amit Kariyani **Dsgn.:** Asst. Professor **Dept.: IT**

**Subject: OBJECT ORIENTED PROGRAMMING WITH C++** (2140705) **Class:1** **Batch:C**

**Lab. Sessions/Week:**2 **Lab. Slot No.**  **Week:**

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| --- | --- | --- | --- | --- | --- |
| **SR. No.** | **Practical Name** | **Demo / Performance**  **(D/P)** | **Proposed Date** | **Actual Date** | **Name/En.No. of students**  **who has given seminar** |
| 1 | WAP to find Simple Interest and Compound Interest | P | 27/12/2017 |  | NA |
| 2 | WAP to add and subtract two matrices | P | 29/12/2017 |  | NA |
| 3 | WAP to generate Fibonacci series using recursion. | P | 3/1/2018 |  | NA |
| 4 | Write a C++ program to find the largest of three numbers using inline function. | P | 5/1/2018 |  | NA |
| 5 | Write a C++ program to sort an array of integer in ascending order using a function called exchange( ) which accepts two integer arguments by reference. | P | 12/1/2018 |  | NA |
| 6 | Write a C++ program to implement function overloading in order to compute  power(m,n) where  i) m is double and n is int  ii) m and n are int. | P | 10/1/2018 |  | NA |
| 7 | Create a 'DISTANCE' class with :  - feet and inches as data members  - member function to input distance  - member function to output distance  - member function to add two distance objects  Write a main function to create objects of DISTANCE class.  Input two distances and output the sum. | P | 12/1/2018 |  | NA |
| 8 | Create a class called 'EMPLOYEE' that has  - EMPCODE and EMPNAME as data members  - member function getdata( ) to input data  - member function display( ) to output data  Write a main function to create EMP, an array of EMPLOYEE objects.  Accept and display the details of at least 6 employees. | P | 17/1/2018 |  | NA |
| 9 | Create a class called 'TIME' that has  - three integer data members for hours, minutes and seconds  - constructor to initialize the object to zero  - constructor to initialize the object to some constant value  - member function to add two TIME objects  - member function to display time in HH:MM:SS format  Write a main function to create two TIME objects, add them and display the result in HH:MM:SS format. | P | 19/1/2018 |  | NA |
|  | | | |  |  |  |  |
| 10 | Create a class 'COMPLEX' to hold a complex number. Write a friend function to add two complex numbers. Write a main function to add two COMPLEX objects. | P | 24/1/2018 |  | NA |
| 11 | Create a 'MATRIX' class of size m X n. Overload the ‘+’ operator to add two MATRIX objects. Write a main function to implement it. | P | 31/1/2018 |  | NA |
| 12 | Derive a class ‘MAT’ from MATRIX class created in above program. Add a member function to overload ‘\*’ operator to multiply two objects. (Single Inheritance) | P | 2/2/2018 |  | NA |
| 13 | Create a 'STRING' class which overloads ‘= = ' operator to compare two STRING objects | P | 7/2/2018 |  | NA |
| 14 | Write a program to create a class *distance* containing *feet* and *inches*. Using *operator* keyword, convert an object of class *distance* into *total meters* which is a float data type. (1 meter=3.28 feet) | P | 9/2/2018 |  | NA |
| 15 | Write a program to demonstrate conversion of an object of one class into an object of another class. | P | 14/2/2018 |  | NA |
| 16 | Write a c++ program :  a) to illustrate multilevel inheritance.  b) to illustrate multiple inheritance. | P | 16/2/2018 |  | NA |
| 17 | Write a C++ program to illustrate ‘*this*’ pointer and pointers to derived classes | P | 28/2/2018 |  | NA |
| 18 | Create a base class called 'SHAPE' having  - Two data members of type double  - Member function *get-data* ( ) to initialize base class data members  - pure virtual member function *display-area*( ) to compute and display the area of the geometrical object.  Derive two specific classes 'TRIANGLE' and 'RECTANGLE' from the base class. Using these three classes design a program that will accept dimension of a triangle / rectangle interactively and display the area. | P | 7/3/2018 |  | NA |
| 19 | Write a C++ program to read a list containing item name, item code and cost interactively and display the data in a tabular format as shown below:   |  |  |  | | --- | --- | --- | | NAME | CODE | COST | | P | 9/3/2018 |  | NA |
| 20 | Design your own manipulator to provide the following output specification for printing money value:  1) 10 columns width  2) The character '$' at the beginning  3) Showing '+' sign.  4) Two digits precision  5) Filling of unused spaces with ' \* ’  6) Trailing zeros shown | P | 21/3/2018 |  | NA |
| 21 | Write a C++ program that uses a single file for both reading and writing the data. | P | 23/3/2018 |  | NA |
| 22 | A file contains a list of names and telephone numbers in the following form:   |  |  | | --- | --- | | NAME | Tel. No. |   Write a C++ program to read the file and output the list in the tabular format. The name should be left-justified and numbers right-justified. Use a class objects to store each set of data. | P | 28/3/2018 |  | NA |
| 23 | Write an interactive, menu-driven program that will access the file created in program No.18a and implement the following tasks:  i) To determine the telephone numbers of the specified person.  ii) To determine the name if a telephone number is given.  iii) To update the telephone number whenever there is a change. | P | 4/4/2018 |  | NA |
| 24 | Write a C++ program that displays the size (in bytes) of a given file. The name of the file is specified as command line argument. | P | 6/4/2018 |  | NA |
| 25 | Define a function template for finding the minimum value contained in an array. Write main( ) function to find the minimum value of integer array and minimum value of floating point numbers in an array. | P | 11/4/2018 |  | NA |

**Sign of Faculty member Dept. HOD. Principal**