Practical List: 01	Enrollment No.:	Name:

Sr. No.	Practical Problems
1.	Write a C++ program that will ask for a temperature in Fahrenheit and display it in Celsius. Celsius = ((temp * 9)/5+32)
2.	Write a C++ program to check whether the given input is Armstrong Number or Not. HINT: 153 = 1*1*1 + 5*5*5 + 3*3*3 // 153 is an Armstrong number. 12 is not equal to 1*1*1+2*2*2 // 12 is not an Armstrong number.
3.	Write a C++ program that will take the marks achieved by student in four different subjects using array. Calculate the percentage of entered input, and display the grade accordingly. If percentage is between 80 to 100 – Distinction. If percentage is between 60 to 79 – First Class. If percentage is between 45 to 59 – Second Class. If percentage is above 35 – Pass Class. Else Fail.
4.	Write a C++ program that can take any integer input number between 1 and 50. Ask for re-entering, if the user input other number rather than 1 to 50. If user input Num=5, then print even numbers comes before 5. 2 4
5.	Create a C++ program that will manage the functionalities of Library. Give the choice to user, to perform from following operation: 1. Member Detail 2. Book Detail 3. Exit ▪ Member Detail – Like id, name, student/faculty, college name, etc... ▪ Book Detail – like book id, book name, book author, book call no, etc... ▪ Exit – to close application
6.	Write a C++ program that accepts and print five numbers using array. Ask the user, if user wants to change any value. If yes, then ask to enter the position and new value for that position. Replace the new value with the original value and again print the original array.

7.	Create a class to represent a bank account, including following members: **Data Members:** 1. Account number 2. Name of the depositor 3. Type of account (i.e. Savings/Current) 4. Balance amount in the account **Member Functions:** 1. To assign initial value 2. To deposit an amount 3. To withdraw an amount after checking minimum balance (minimum balance is 500) 4. To display the name and balance Write a program to test the class for maintaining transaction detail.

8.	Create a class called "Hotel" which contains the following:
	Private Data Members:
	1. Rno(Data member to store Room No)
	2. Name(Data member to store customer name)
	3. Tarrif(Data member to store per day charges)
	4. Days(Number of days of stay)
	Member Function:
	1. Calculate( ) // A function to calculate and return the amount
	2. Formula: days*tarrif.
	Public Members:
	1. Check-in () // A function to enter Rno, Name, tariff and days
	2. Display( ) // A function to display Rno, Name, Tarrif, days and
	3. Total amount as per the Calculate () function
	4. Instantiate the class and write the main function as needed.

9.	Develop a C++ application for Railway Ticket Booking. Create a class Train and display the following details of train and perform the required task: ▪ Train Number ▪ Train Name ▪ Train Source ▪ Train Destination ▪ Available Coach: 1) S1 - First AC - Fair – 260 Rs. 2) S2 - Chair Car – 180 Rs. 3) S3 - Sleeper – 75 Rs. ▪ Ask user the coach and number of seats required. ▪ After taking the total number of seats, ask number of senior citizen and children under age of 5 years. ▪ Do not consider any charges for children; and for senior citizen consider 50% of fair. ▪ Display the last payable amount.

10.	Create a class called SHAPE and find area of circle, square, rectangle and tringle, using proper methods; and default arguments.
Objective(s)	Basic programming concepts.
Pre-requisites	Fundamentals of Programming.
Duration for Completion	6 Hour
PEO(s) to be achieved	To provide quality practical skill of tools and technologies to solve industry problems.
PO(s) to be achieved	Ability to use the techniques, skills and modern tools as necessary for software development.
CO(s) to be achieved	Recognize, design, implement and use classes and methods.
Solution must contain	Program and output
Nature of submission	Handwritten
References for solving the problem	--
Post Laboratory questions	1. What is the use of “namespace” in C++? 2. State the purpose of access specifier in C++. How they are used in C++ programs? 3. What is inline function? Give proper example. 4. How references can be passed and returned? 5. How arrays can be passed to a function as an argument?
Assessment	
Faculty Name and Signature	
Date	