APPENDIX–I

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| WEEK NO. | PROBLEMS WITH THE DESCRIPTION | | PAGE NO. | SIGNATURE OF THE TEACHER WITH DATE | |
| 1 | 1# | Open a new document and type the following letter |  |  | |
| 2# | Create a table in word as shown below: |  |
| 3# | Using a spreadsheet ….…Save it as Salary advice. |  |
| 4# | Use a new workbook & construct a worksheet with the data given & save it as LYONS. |  |
| 2 | 1# | Design Seasonal Greeting cards using MS-Power Point. |  |  | |
| 2# | Design a AMU Magazine cover in MS-Power Point. Use the following: |  |
| 3# | Design a poster inviting all students of your department to the IT Fest (using MS-Power Point). |  |
| 4# | Create a 5-slide presentation on any topic. Use Images, Graphs, Chart, Tables, Animation, Time, Bullets, Transition, Sound, Hyperlink, Background template, Header and Footer (using MS-Power Point). |  |
| 5# | Create a 5-slide presentation on any topic. Use Images, Graphs, Chart, Tables, Animation, Time, Bullets, Transition, Sound, Hyperlink, Background template, Header and Footer (using MS-Power Point). |  |
| 3 | 1# | Dev C++ IDE: Installation, Features and C++ Development |  |  | |
| 4 | 1# | Write a C++ program to check whether a number is even or odd using ternary operator. |  |  | |
| 2# | Write a C++ program to perform the addition of two numbers without using + operator. |  |
| 3# | Write a C++ program to evaluate the arithmetic expression ((a+b/c\*d - e) \* (f - g)). Read the values a, b, c, d, e, f, g from the standard input device. |  |
|  | 4# | A Fibonacci sequence is defined as follows: The first and second terms in the sequence are 0 and 1. Subsequent terms are found by adding the preceding two terms in the sequence. Write a C++ program to generate the first n terms of the sequence. |  |  | |
| 5# | Write a C++ program to generate all the prime numbers between  1 and n, where n is a value supplied by the user. |  |
| 6# | A character is entered through keyboard. Write a C++ program to ……..The following table shows the range of ASCII values for various characters. |  |
| 7# | Write a C++ program to find the roots of a quadratic equation. |  |
| 8# | Write a C++ program to check whether a given 3 digit number is Armstrong number or not. |  |
| 5 | 1# | Write a C++ program to find the second largest integer in a list of integers. |  |  | |
| 2# | Write a C++ program to perform the following: Addition of two matrices Multiplication of two matrices |  |
| 3# | Write a C++ program to count and display positive, negative, odd and even numbers in an array. |  |
| 4# | Write a C++ program to merge two sorted arrays into another array in a sorted order. |  |
| 5# | Write a C++ program to find the frequency of a particular number in a list of integers. |  |
| 6 | 1# | Write a C++ program to concatenate two strings using pointers. |  |  |
| 2# | Write a program for reading elements using pointer into array and display the values using array. |  |
| 3# | Write a program through pointer variable to sum of n elements from array. |  |
| 4# | Write a program for reading elements using pointer into array and display the values using array. |  |
| 5# | Write a C++ program to reverse a string using pointers. |  |
| 7 | 1# | Write a C++ program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of n real numbers. |  |  |
| 2# | Write a C++ program to create three objects for a class named pntr\_obj with data members such as roll\_no & name. Create a member function set\_data() for setting the data values and print() member function to print which object has invoked it using ‘this’ pointer |  |
| 3# | Develop a C++ program to find the greatest of two numbers using this pointer which returns the member variable. |  |
| 4# | Write a C++ program to implement flight class with data member as flight\_no., source destination and fare. Write a member function to display the flight information using this pointer. |  |
| 5# | Write a C++ program to use this pointer and return pointer reference. |  |
| 8 | 1# | Write a C++ program that uses functions to perform the following operations: |  |  |
| 2# | Write a C++ program to determine if the given string is a palindrome or not. |  |
| 3# | Write a C++ program to find a string within a sentence and replace it with another string. |  |
| 4# | Write a C++ program that reads a line of text and counts all occurrence of a particular word. |  |
|  | 5# | Write a C++ program that displays the position or index in the string S where the string T begins, or 1 if S doesn’t contain T. |  |
| 9 | 1# | Write C programs that use both recursive and non-recursive functions to find: |  |  |
| 2# | Write C programs that use both recursive and non-recursive functions to solve towers of Hanoi problem. |  |
| 3# | Write a C++ program to print the transpose of a given matrix using function. |  |
|  | 4# | Write a C++ program to swap two number by both call by value and call by reference mechanism, using two functions swap\_value() and swap\_reference  LAB MANUAL/MCA/CSD–10P1/LAB-I/CSD-AMU 40 respectively, by getting the choice from the user and executing the user’s choice by switch-case |  |  |
| 5# | Write a C++ program to display all array elements using recursion. |  |
| 6# | Write a C++ program to find sum of elements of array using recursion. |  |
| 7# | Write a C++ program to find maximum and minimum elements in array using recursion. |  |
| 8# | Consider the insurance database given below. The primary keys are made bold and the data types are specified. |  |
| 10 | 1# | Write a C++ program that uses functions to perform the following operations: |  |  |
| 2# | Write a C++ program to compute the monthly pay of 100 employees using each employee’s name, basic pay. The DA is computed as 52% of the basic pay. Gross-salary (basic pay +  DA). Print the employees name and gross salary. |  |
| 3# | Create a Book structure containing book\_id, title, author name and price. Write a C++ program to pass a structure as a function argument and print the book details. |  |
| 4# | Create a union containing 6 strings: name, home\_address, hostel\_address, city, state and zip. Write a C++ program to display your present address. |  |
| 5# | Write a C++ program to define a structure named DOB, which contains name, day, month and year. Using the concept of nested structures display your name and date of birth. |  |
| 6# | Consider the following database for a banking enterprise. |  |
| 11 | 1# | Write a program in C++ to display your name, Branch, Year on to the computer screen without using classes and object. All information should be displayed in the separate line. |  |  |
| 2# | Write a menu driven program in C++ to perform all basic arithmetic ……….. the keyboard and display particular result of the required operation. |  |  |

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|  | 3# | Write a menu driven program in C++ that receives 4 digit integer value the keyboard and perform following operations: |  |  |
| 4# | Write a menu driven program in C++ to receive integer number and convert equivalent binary, octal, hexadecimal number. |  |
| 5# | Write a menu driven program in C++ to perform all basic …… Program receives two values and required operation to be performed from the keyboard and display particular result of the required operation. |  |
| 6# | Define a class Bank Account to represent a bank account.  Include the following members: |  |
| 12 | 1# | Write a program in C++ to demonstrate default constructor. ……. value and display these values with the help of member function. |  |  |
| 2# | Write a program in C++ to demonstrate parameterized/………arithmetic operation over these values and display result on to the computer screen. |  |
| 3# | Create a class called …….. The first is hypo( ), which returns the length of the hypotenuse. The second is area ( ), which returns the area of the triangle. |  |
| 4# | Create a class for counting the number of objects created and destroyed within various block using constructor and destructors. |  |
| 5# | Create an inter University Database with the following relations. Include at least four attributes for each table. |  |
| 13 | 1# | Declare a class Number that contains two data member value1 and ……. [hint- binary operator overloading using member function] |  |  |
| 2# | Declare a class Number1 that contains two data member value1  and value2 ……operator respectively [hint- binary operator overloading using friend function] |  |
| 3# | Declare a class Number3 that contains a data member value of  the type……. -, ++, - - operator respectively [hint- Unary  operator overloading using member function] |  |
| 4# | Write a program to demonstrate explicit type conversion o from basic type to user defined data type. o from User Defined data type to Basic data type data type. |  |  |
| 5# | Create a class publication which has title of book and writers name. Create other class sales which account no. of sales for every month (upto 3 months) and then calculate total sales. |  |
|  | 6# | Write a program to demonstrate the following: |  |  |
| 7# | Write a program to solve the ambiguity problem in inheritance  ……. How this problem is solved with the help of virtual base class concept. |  |
| 14 | 1# | Write a program to use …… And then define a function elder to compare ages of two different persons using this pointer to find out the elder person. |  |  |
| 2# | Create a simple “shape” hierarchy: a ……. If your debugger supports it, single-step through the code. |  |
| 3# | Write a small program to show the difference between calling a…… The program should prove that the two calls produce different results |  |
| 4# | Write a program in C++ to calculate mean value of n numbers using friend function. |  |
| 5# | Write a program to accept five ……. the average of these numbers by passing object of the class to friend function. |  |
| 6# | Write a program in C++ to display student’s information using friend function. |  |
| 7# | Write a C++ program to …... Display the contents of the file in reverse order. |  |
| 8# | Write a C++ program to count the no. of characters present in the file. |  |
| 9# | Create a class with a main( ) that throws an object of class ……..  Add a finally clause and print a message to prove you were there. |  |