**LAB TASKS 2 (PSEOUDOCODES):**

**1.**

Write pseudocode to find the smallest number among three given variables. Implement a

decision-making structure to compare the variables:

***START***

INPUT num1

INPUT num2

INPUT num3

IF num1<num2 THEN

IF num3<num1 THEN

OUTPUT num3

ELSE

OUTPUT num1

ELSE-IF num2<num3 THEN

OUTPUT num2

***END***

**2.**

Create pseudocode to subtract two numbers without using the - operator. (Hint: Use addition

and complement techniques.)

***START***

INPUT Bigno.

INPUT Smallno.

SET Smallno. To Binary

SET Smallno. TO 2’s complement

SET Bingo. To Binary

Solution= Bigno. + Smallno.

SET solution TO Denary

OUTPUT solution

***END***

**3.**

Develop pseudocode for a basic calculator that performs multiplication and division. The

pseudocode should prompt the user for two numbers and an operator, then display the result

of the operation.

ANS: ***START***

INPUT num1

INPUT num2

INPUT operator

IF operator == ” / ” THEN

Value=num1/num2

ELSE-IF operator== “\*” THEN

Value= num1\*num2

OUTPUT value

***END***

**LAB TASKS 2 (ALGORITHM):**

**1.**

Write an algorithm to determine whether a number is a prime number. The algorithm should

iterate through possible divisors and determine if the number has any divisors other than 1

and itself.

1. Take number from user

2.divie number by itself

3.divide by 1

4.loop how many times it must be divided

5. set a count till when it should divide

6.count how many times an integer comes after dividing instead of a floating point

7.output all the divisors where an integer came

8.if there are none then output that it’s a prime number

**2.**

Create an algorithm that asks the user for a day number (1-365) and outputs the

corresponding day of the week, assuming that January 1st is a Monday.

ANS: 1. Make user enter the day number

2. set the name of seven days

3. assign number from 0-6 or 1-7 to the name of days in order

4. use MOD to find the remainder of the user day number and divide by 7

5. output the name of the day corresponding to remainder

**3.**

Develop an algorithm for a program that takes two numbers as input and finds the Greatest

Common Divisor (GCD) of the two numbers using the Euclidean algorithm.

ANS: 1. Take an input from user of 2 numbers

2. make the value of second number to first number

3. then make the value of second number the mod between first and second number

4. Repeat the from step 2 until the value of second the number comes 0

5. output the value of first number as GCD when second number is 0