**COMSATS University Islamabad,**

**Lahore Campus**

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**Programming Fundamentals**

**LAB TASK 02**

**Exercise 9:** A person invests $1000.0 in a savings account yielding 5% interest. Assuming that all interest is left on deposit in the account, calculate and print the amount of money in the accounts at the end of each year for 10 years. Use the following formula for determining these amounts:

where

p is the original investment (i.e., the principal)

r is the annual interest rate

n is the number of years

a is the amount on deposit at the end of the nth year.

**Flowchart:**

Start

Input n=1

Investment p = 1000

Investment rate = 5%

Years = n

If n<=10

True

False

Amount on deposit

a = p(1+r) ^ n

Print a

End

**C Code:**

#include <stdio.h>

#include <stdlib.h>

#include <math.h>

/\* This program is prepared by Syed Asad Jamil. Reg no. SP22-BSE-123. Section: B on 27/03/2022

(This Program print the amount of money in the accounts at the end of each year for 10 years). \*/

int main()

{

float a, p, r, n;

p=1000.0;

r=5\*0.01;

n=10;

printf(" Year.");

printf("\t\tAmount on deposit:\n\n");

for(n=1;n<=10;n++)

{

a = p \* pow((1+r),n);

printf(" %.f\t\t %.2f\n", n, a);

}

return 0;

}

**Graphical user interface, text

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