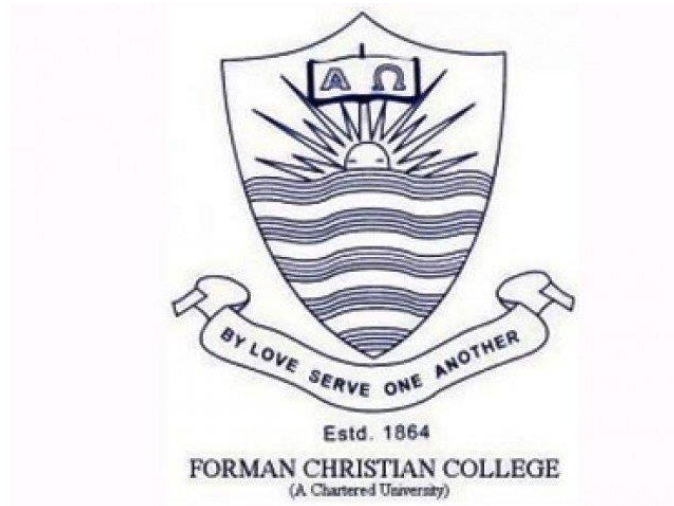


Programming II

Comp 111

Spring 2022



Department of Computer Science
Forman Christian College University

Lab 1

Revision: Programming 1

5 Marks for each Question

Question 1:

Write a program that uses a `while` loop to determine how long it takes for an investment to double at a given interest rate. The input will be an annualized interest rate, and the output is the number of years it takes an investment to double. Note: the amount of the initial investment does not matter; you can use \$1.

Question 2:

A positive whole number $n > 2$ is prime if no number between 2 and \sqrt{n} (inclusive) evenly divides n . Write a program that accepts a value of n as input and determines if the value is prime. If n is not prime, your program should quit as soon as it finds a value that evenly divides n .

Question 3:

You have a dictionary `mystery{ }` that contains names of persons as keys and their ages as values. Write a function `ageing(dict)` that takes the dictionary as argument and returns the dictionary after increasing each age, i.e. key value, by 1.

Question 4:

Write a program that prints out a student grade report. There is a file, `classes.txt`, that contains the names of all classes taught at a college, such as

`classes.txt`

```
CSC1
CSC2
CSC46
CSC151
MTH121
...
```

For each class, there is a file with student ID numbers and grades:

`CSC2.txt`

```
11234 A-
12547 B
16753 B+
21886 C
...
```

Write a program that asks for a student ID and prints out a grade report for that student, by searching all class files. Here is a sample report

```
Student ID 16753
CSC2 B+
MTH121 C+
CHN1 A
PHY50 A-
```