**INTRODUCTION TO PROGRAMMING**

**DIPLOMA IN BUSINESS INFORMATION TECHNOLOGY**

**DBIT 1 – GROUP B**

**LAB 02 – CONTROL STRUCTURES**

**Instructions:**

1. This lab work should be done in groups of 2 or 3 based on the seating arrangement in the lab.
2. Note that the presentation of the **output** and a **well written** source code makes a difference between a well-done work and just any other work
3. Submit your work according to the guidelines provided in class.
4. Use the table below to write your student details.
5. Create a directory on the desktop and put all your python files in that directory.

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Admission Number** | | **Student Name** | |
| 1. |  |  |
| 2. |  |  |
| 3. |  |  |

**Question 1: Prime Numbers – 10 Marks**

1. Write a Python program to find all prime numbers within a given range. Prompt the user to enter two numbers, **start** and **end** (where start is inclusive and end is exclusive), and then find and print all prime numbers within that range. A prime number is a whole number greater than 1 whose only factors are 1 and itself.

**For Example:**

Enter the start of the range: 10

Enter the end of the range: 50

Prime numbers between 10 and 50 are:

11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47

**Question 2: Grading System – 10 Marks**

1. The table below shows the grading system as used by Strathmore Institute of Management. Study it carefully and respond to the following questions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grade:** | A | B | C | D | E |
| **Score:** | 75 | 60 | 50 | 40 | 0 |

Write a program that will prompt the user to enter a student’s score then a grade is displayed for that corresponding score.

**Hint:**

* Normally, a score cannot be more than 100 or less than 0.