COMPUTER SCIENCE DEPARTMENT
MILITARY COLLEGE OF SIGNALS, NUST
FUNDAMENTALS OF PROGRAMMING
BESE 16 A

Exam: Midterm lab exam   **Instructor**: Shahela Saif
Type of Paper: Regular   **Total Marks**: 20
Semester: Fall 2010   **Time Allowed**: 120 min

Note:
1. Use of course work slides or other helping material is not allowed.
2. Submit your work in the assignments folder as other regular assignments.
3. Copied submissions will be cancelled altogether.
4. Viva will be conducted from all students.

Question .No.1   **(10)**
Create a program that works as a simple calculator. The program takes two numbers from user and calculates their sum, difference, product, quotient.

Sample Output:

Enter value for A: 4
Enter value for B: 5
Calculate
       1. Sum
       2. Product
       3. Difference
       4. Quotient
Enter Choice: 1
Sum: A+B: 9   B+A: 9
.
.
Enter Choice: 3
Difference: A-B: -1   B-A: 1

Question .No.2   **(10)**
Create a program that takes any integer n from user and displays all prime numbers smaller than it.
A prime number is not divisible by any number smaller than it. Continue dividing n by each number between 2 and square-root of n. If any of them divide evenly then n is not prime.

Sample Output:

Enter a number: 14
Prime numbers smaller than 14:   2, 3, 5, 7, 11

Extra Credit: (01)
For indented, neat and commented code.