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|  | **Computer Organization & Assembly Language**  **BSCS 3rd**  **Department of Computer Science**  **Bahria University, Lahore Campus** |

**Quiz: 2**

Date: Week 6, 30th March 2023

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Roll No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Evaluation of CLO** | **Question Number** | **Marks** | **Obtained Marks** |
| **CLO1: CLO statement**  *Simulate the internal representation of data, and show how data is stored and accessed in, I/O modules, and the interconnecting components of the computer systems* | 1 | 2.5 |  |
|  |  |  |
| **Total Marks** | | **2.5** |  |

**Question 1.** Write a program to prompt the user for a number, and determine if that number is prime. Your program should print out "Number n is prime" if the number is prime, and "Number n is not prime if the number is not prime. The user should be able to enter input a "-1" is entered. It should print an error if 0, 1, 2 or any negative number other than -1 are entered.

Note: Purpose: To find all primes from 3 to n

Registers: $s0 - The largest number to check if prime

$s1 - The loop counter over the primes (outer loop)

$s2 - The largest value to use to check if prime ($s1/2)

$s3 - The loop counter to check if prime