Capital University of Science and Technology

Department of Computer Science

CS 2523 – Computer Organization and Assembly Language

QUIZ NO. 2: Basics of Computer Organization and Assembly Language

Section# 4

CLO: 1. Define concepts in the design of microprocessor as state machine and designing its data path and its controller.

Semester: Fall 22		**Max Marks:** 10
Instructor: Ms. Tayyaba Zaheer	**Date:** October 24, 2022	**Max Time:** 10 Minutes
Name:	**Reg. No.**	

Question No.1 [04 Marks]

Please choose the best possible option:

1. (01 mark) To convert Hexadecimal 100_{16} to binary would result in:
   a) 0001000000002

   b) 000100000000_2

   c) 00010000000_d

   d) None of the mentioned

Solution: b

2. (01 mark) Considering 1000 a decimal, can be represented as:
   a) 1000_{10}

   b) 1000_d

   c) Both a & b

   d) None of the mentioned

Solution: c

3. (01 mark) DBA42A00 is not a negative double-word.
   a) True

   b) False

   c) Depends on the underlying machine

   d) None of the mentioned

Solution: b

4. (01 mark) The Data Bus of the computer is:
   a) Unidirectional

   b) Bidirectional

   c) Circular

   d) None of the mentioned

Solution: b

Question No. 2 [06 Marks]

The address of var1 is 117_{16}. The address of the next variable after var1 is 519_{10}. How many bytes are used by var1?

Solution:

$519_{10} = 207_{16}$

$117_{16} = 279_{10}$

Hexadecimal subtraction

$207_{16} - 117_{16} = F0_{16}$

Decimal subtraction

$519_{10} - 279_{10} = 240_{10}$