** COMSATS - Lancaster Dual Degree Programme**

**COMSATS Institute of Information Technology Lahore**

**Assignment-I**

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| Course Title: | Computer Organization & Assembly Language | | | | Course Code: | | CSC222 | Credit Hours: | | 3(3,0) |
| Course Instructor/s: | Mahwish Waqas | | | | Programme Name: | | BS Computer Science | | | |
| Semester: | 3rd | Batch: | SP13 | Section: | A | | Date: | |  | |
| **Deadline** | **19,October, 2017** | | | | **Maximum Marks:** | | | | **20** | |
| Student’s Name: |  | | | | Reg. No. | CIIT/SDP-SP13-BCS - /LHR | | | | |
| **Important Instructions / Guidelines:**   * Attempt all questions. | | | | | | | | | | |

**Question 1: [Marks: 6]**

A memory location has a physical address 5BA00h. Compute

1. The offset address if the segment number is 51ACh. [2]
2. The segment number if the offset address is 4D10h? [2]
3. Determine the physical address of a memory location given by 70F6:1BC0h. [2]

**Question 2: [Marks: 5]**

What is the binary representation of D5B7h? Also calculate the unsigned and signed decimal interpretation of this number.

**Question 03:** Using only basic arithmetic instructions, translate the given statement into assembly language.

Assume A, B and C are word variables: **[Marks: 5]**

A = B + 2 – (C\*2)

**Question 04:** Perform the following addition or subtraction: **[Marks: 4]**

a. FE02h + 1E01h (2)

b. 10110100b – 10010111b