



# **Ahsanullah University of Science & Technology**

## **Department of Computer Science & Engineering**

**Course No** : CSE2214  
**Course Title** : Assembly Language Programming Sessional  
**Assignment No** : 03

**Date of Performance** : 15/12/21  
**Date of Submission** : 22/12/21

**Submitted To** : Mr. Sajib Kumar Saha Joy & Zarin Tasnim Shejuti

**Submitted By**  
**Group** : B1  
**Name** : Kazi Atiqur Rahman  
**Id** : 190204086  
**Section** : B



Question No: 01

Question: Determine the physical addresses of a memory location given by 0A51:CD90h

Answer: Hence,

$$\text{Segment} = 0A51h$$

$$\text{Offset} = CD90h$$

We know, physical Address = (segment \* 10h) + offset

$$= (0A51h * 10h) + CD90h$$

$$= (0A510h) + CD90h$$

$$= 172A0h.$$

$\therefore$  Physical Address is 172A0h.



Question No: 02

Question: A memory location has a Physical address 4A37Bh. Compute -

2.1. The offset address if the segment number is 40FFh.

2.2. The segment number if the offset address is 123Bh.

Answer:

We know,

$$\text{Physical Address} = (\text{segment} * 10h) + \text{offset}$$

$$\therefore \text{offset} = \text{Physical Address} - (\text{segment} * 10h)$$

$$= 4A37Bh - (40FFh * 10h)$$

$$= 4A37Bh - 40FF0h$$

$$\therefore \text{offset} = 938Bh.$$

$$\therefore \text{segment} = (\text{Physical Address} - \text{offset}) / 10h.$$

$$= (4A37Bh - 938Bh) / 10h.$$

$$= 49140h / 10h$$

$$\therefore \text{segment} = 4914h$$