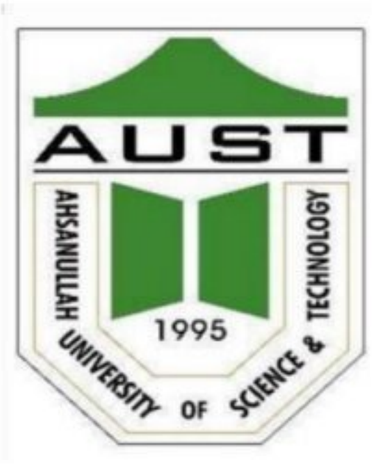

Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

Course No : CSE2214

Course Title : Assembly Language Programming Sessional
Assignment No : 03

Date of Performance : 03-01-2021

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Submitted To : Ms. Tahsin Aziz & Mr. A.K.M. Amanat Ullah

Submitted By-

Group : B_2

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Section : B

Question No : 01

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

Answer :

We know that, physical address = segment * 10_h + offset

Here,

segment = $0A51_h$

offset = $CD90_h$

So, physical address = ($0A51_h$ * 10_h) + $CD90_h$

= $0A510_h$ + $CD90_h$

= $172A0_h$

Question No : 02

Question : A memory location has a physical address $4A37B_h$. Compute

2.1. The offset address if the segment number is $40FF_h$

2.2. The segment number if the offset address is $123B_h$

Answer:

2.1. We know that, physical address = segment * 10_h + offset

Here,

segment = $A0FF_h$

physical address = $4A37B_h$

So, offset = physical address - segment * 10_h

= $4A37B_h$ - ($A0FF_h$ * 10_h)

= $4A37B_h$ - $A0FF0_h$

= $938B_h$

2.2. We know that, physical address = segment * 10_h + offset

Here,

offset = $123B_h$

physical address = $4A37B_h$

So, segment = (physical address - offset) / 10_h

= ($4A37B_h$ - $123B_h$) / 10_h

= 49140_h / 10_h

= 4914_h