Bangladesh Army University of Engineering & Technology

Department of Computer Science and Engineering

2nd Year 2nd Semester Fall–2020

Course Code: CSE-2215

Course Title: Computer Architecture

Full Marks: 20 **Time: 40 Min**

N.B.: 1. The figure in the right margin indicates the full marks.

Class Test-01

Marks

1. (a) Illustrate the difference between program counter and instruction register with their working procedures. **5**

(b) Define the following terms: **6**

i. Computer Architecture and Organization
ii. Computer Core and Multicore
iii. Embedded Systems with examples

(c) The hypothetical machine has the following instructions: **9**

Load AC from memory
Store the same value AC to memory
Add to AC from memory

In these cases, the 12-bit address identifies a particular memory location starting from 010100000000. Show and analyze the program execution process for the following steps:

1. Load AC from memory
2. Add contents of memory location 580
3. Store AC to memory in the consecutive next two locations from the location where the value stored from AC

Assume that the address and contents of memory and registers value is hexadecimal form. Chose arbitrary value for memory contents.