EAST WEST UNIVERSITY
Department of Computer Science and Engineering
B.Sc. in Computer Science and Engineering Program
Mid Term II Examination, Fall2021

Course:	**CSE360 – Computer Architecture, Section-1**
Instructor:	**Dr. Md. Sawkat Ali, Assistant Professor, CSE Department**
Full Mark:	**25**
Time:	**1 Hour and 10 Minutes**

Note: There are FIVE questions, answer ALL of them. Course outcomes (CO), cognitive levels and marks of each question are mentioned at the right margin.

1.	**Design** the 512 KB volatile main-memory chips to perform the data read (4 bits) operation. Note that, the design must convey row and column addresses and other necessary control signals.	[CO2, C3, Mark: 5]
2.	**Write down** the programming steps for the A=B*C arithmetic operation. Note that, in the operation, 'C' follows the two's complement.	[CO2, C4, Mark: 6]
3.	Describe with an example which mapping technique has less freedom to copy the blocks of data from the main memory to the cache memory.	[CO2, C4, Mark: 3]
4.	With an example describe which I/O interface process is more appropriate for data execution and why?	[CO2, C2, Mark: 5]
5.	**Determine** the average access time for transferring 256 bytes of hard disk drive data with the following specifications: i) Average seek time = 5 ms ii) Disk rotation = 100 rps iii) Data rate = 40 Kbps iv) Controller overhead =0.1 ms v) Queue delay= 0.2 ms	[CO2, C6, Mark: 5]