



**EAST WEST UNIVERSITY**  
**Department of Computer Science and Engineering**  
**B.Sc. in Computer Science and Engineering Program**  
**Final 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.	With an example, show the <b>status flag</b> of a microprocessor where maximum flag bits are activated.	[CO4, C3, Mark: 5]
2.	Write an assembly language program for adding three 8 bits numbers, where the data is located on the memory 'DS' location. Also, the following points should be added to the code: 1) Consider DS = 20PP H, where 'PP' stands for your last two-digit student ID. 2) Source index (SI) will be 15TT H where 'TT' stands for the last two-digit student ID. 3) Destination index (DI) address will be 2500 H.	[CO4, C4, Mark: 5]
3.	Consider two instructions (m and m+i) are executed in 6 stages pipelining process where the last instruction depends on the previous one. With an example, determine which hazard will be occurred and what would be the solutions.	[CO4, C4, Mark: 5]
4.	Convert infix into the postfix notation using stack: $K + L - (M * N) + (Y \wedge Z) * W / U / V * T + Q$	[CO3, C2, Mark: 5]
5.	Based on the following equation, write the programs (using three, two and one address instructions), and compare them on the basis of memory access, and the number of instructions. $Z = \frac{(a - b)}{c + (d \times e)}$	[CO3, C2, Mark: 5]