Student ID -　　　　　　　　　　　**Name -**
United International University (UIU)
Dept. of Computer Science & Engineering (CSE)
CSI 227 Fall 2021
Class Test 3　　　Total Marks: 10
You have to answer here. No extra page will be provided.
Use the value of x in Question 2, where **x = *last_three_digits_of your_student_id* mod 5** =

1　Following is the parent array of a Disjoint set.　　　　　　　　　　　**[2**
　　a)　Draw the disjoint set forest　　　　　　　　　　　　　　　　　　**+2**
　　b)　What will be returned by Find-Set(**x**), Find-Set(x+3) and Find-Set(7). Show details.　**+1**
　　c)　Redraw the forest after Union(8, 7).　　　　　　　　　　　　　　**+1]**
　　d)　Redraw the forest after Union(0, 7).

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2   What are the conditions to be able to topologically sort a graph? Find the topological sort of the   **[1 +3]**
     following graph.