



Daffodil International University

Department of Computer Science and Engineering (FSIT)

Course Code: CSE426 (Day)

Course Title: Principles of Robotics

Section :T3_PC(A,B,C,D,F)

Course Teacher: TRN

Date :21 October 2022

Quiz – 2

Time: 30 Minutes

Total Marks :15

Analyze and answer based on your own thinking and work

Special Transformation and Description in Robotics course that help you to transform a frame. Solve the following problem using your transformation knowledge and learning.

A frame F is located in the position $P(x,y,z)$, where x,y,z are the first 3 digits of your student ID.

After the following transformation the frame position has changed to $Q[4,-3,7]T$. A rotation along X axis by 30 degree but before that a translation along all axis by $[1,3,-9]$. After those two, another rotation along Y axis by 55 degree followed by a translation along all axis by $[2,-4,1]$. Find the position P with respect to Q.

Good Luck!