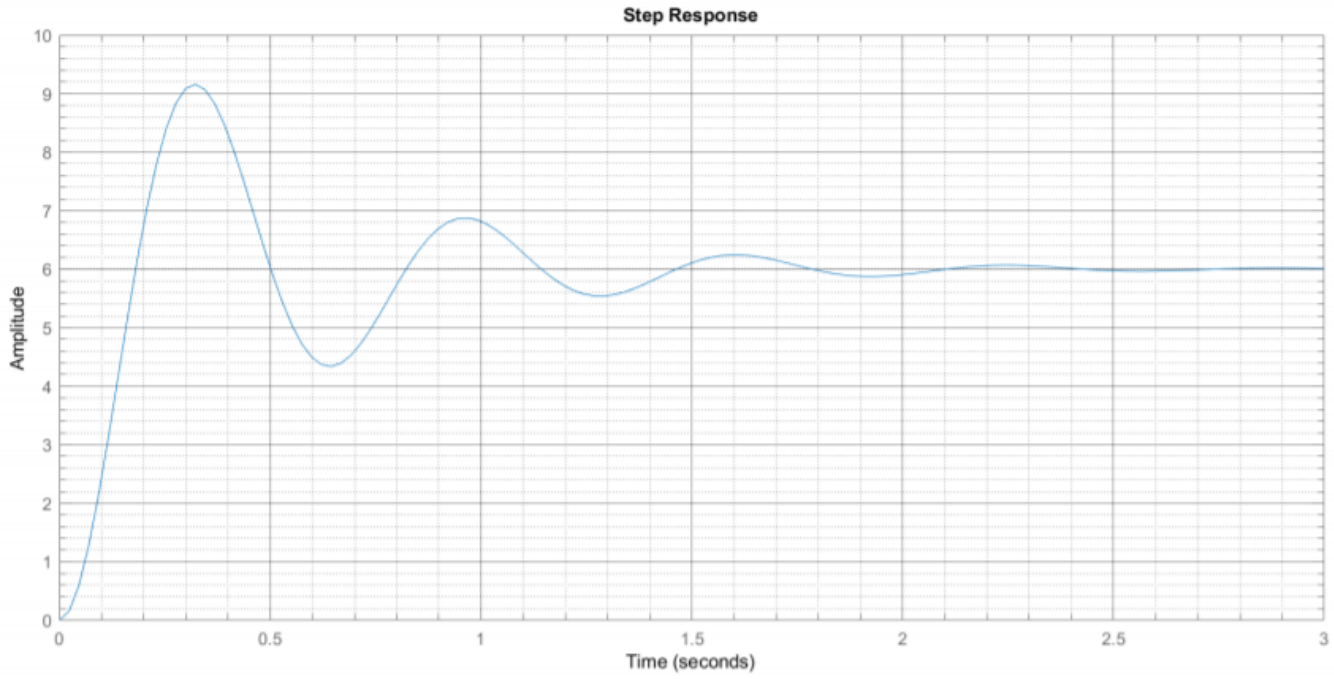
BRAC UNIVERSITY

Department of Computer Science and Engineering

Examination: Quiz 2 **Duration: 15 mins**
Semester : Fall 2023 **Full Marks: 5**

CSE 461: Introduction to Robotics

You are working to develop a PID controlled system where the desired value is 6 units and desired fluctuation is 4%. After a substantial amount of analysis, you found the following system response graph. You observed that the resulting gain is 5 and the oscillation period is 2.



1.	**CO2**	a. **Calculate** the Overshoot, Rise Time and Settling time of the system response graph shown in the figure. b. **Find** the parameters of the PID controller used in the given system.	**3** **2**

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Examination: Quiz 3 **Duration: 15 mins**
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CSE 461: Introduction to Robotics

1.	**CO2**	a. **What** path planning algorithm will you use if the robot has no knowledge of the environment ? Describe briefly. b. **Briefly** explain the Simple OG Mapping algorithm.	**2** **3**