PAKISTAN INSTITUTE OF ENGINEERING AND APPLIED SCIENCES

DEPARTMENT OF PHYSICS AND APPLIED MATHEMATICS

ASSIGNMENT # 7, PAM–533, DUE DATE: 30/08/2021

Problem 1: A set of magnetically-coupled rotors with velocity-dependent damping move according to the equations:

$$\ddot{\vartheta}_1 = \beta \sin(\vartheta_2 - \vartheta_1) - b\dot{\vartheta}_1 \tag{1}$$

$$\ddot{\vartheta}_2 = \beta \sin(\vartheta_1 - \vartheta_2) - b\dot{\vartheta}_2 \tag{2}$$

Write a program that plots ϑ_1 and ϑ_2 vs time for a total time $\tau = 20$ seconds, with $b = 0.1$ and $\beta = 5.0$.

HAPPY CODING ☺