COLLEGE OF ENGINEERING
ENGINEERING MATHEMATICS I (ENG 281) ASSIGNMENT II

Given Date: 11/10/2017
Submission Date: 17/10/2017

PROBLEM STATEMENT

The parametric equations of a curve are as given in Equations (1) and (2):

$$x = \cos t + t \sin t \tag{1}$$

$$y = \sin t - t \cos t \tag{2}$$

In terms of t, determine:

(i) an expression for the radius of curvature (R), and

(ii) expressions for the coordinates (h, k) of the centre of curvature.