

KFUPM – Department of Mathematics and Statistics – Term 171

MATH 101

QUIZ # 6: Code 1 (Duration = 20 minutes)

NAME: _____ ID: _____ Section: _____

Exercise 1 (5 points) Find the area of the largest equilateral triangle that can be inscribed in a semi-circle of radius R if the height of the triangle lies in the Y -axis.

Exercise 2 (5 points) Find the intervals where the function $f(x) = x^4 - 24x^2$ is concave-up and concave down and the inflection points (if exist).

NAME: _____ ID: _____ Section: _____

Exercise 1 (5 points) Find the intervals where the function $f(x) = x^4 - 6x^2$ is concave-up and concave down and the inflection points (if exist).

Exercise 2 (5 points) Find the area of the largest equilateral triangle that can be inscribed in a semi-circle of radius R if the height of the triangle lies in the Y-axis.