

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS AND STATISTICS
MATH 101 - QUIZ 6

Name:

Student ID #:

Question. Consider the function

$$f(x) = \cos^2(x) - \sin(x), \quad 0 \leq x \leq 2\pi$$

- (1) Find the intervals on which f is increasing or decreasing,
- (2) Find local maximum and minimum values of f ,
- (3) Find the intervals of concavity and the inflection points.

Your Solution.