Department of Mathematics and Statistics KFUPM
MATH 101-08 Quiz#5, Time: 30 mins

Student's Name: _____ ID: _____Section No: _____

Class Time: _____ Instructor's Name: _____

Q.No.1:- Find the sum of all the critical points of $f(x) = (e^x).\sqrt[3]{x+1}$ on $[-2\ ,0]$.

Q.No.2:- Verify that the function $f(x) = \frac{1}{x}$ satisfies the hypotheses of the Mean Value Theorem on interval $[1\ ,3]$. Then find all numbers that satisfy the conclusion of the Mean Value Theorem.

Q.No.3:- Suppose $f(x) = \frac{x^2-4}{x^2+4}$

(a) Find the intervals of increase or decrease.

(b) Find the local maximum and minimum values.

(c) Find the intervals of concavity and the inflection points.