Kafr El-Sheikh *Mathematic Second year*

Faculty of Science *Real analysis*

Department of Mathematic. *Second term exam*

تناول بالبحث احد الموضوعات الاتية;

(1) Bounded set in R, supremum and infimum of finite set and completeness of the real numbers R.

(2) Neighborhood of a point in R and in R^2 ,open and closed set in R and in R^2 and limit points for a set.

(3) Compact Set and Hienborel theorem and its applications.

(4) the continuity and the uniform continuity of the real functions. And the important theorems on it.

(5) Metric Space, open sphere and its uses to redefine to Neighborhood of a point and open set.

(6) Convergence of increasing and decreasing monotonic sequence and sequence of partial sum for a series of real numbers whether converges or not.

(7) Cauchy Sequence and its properties.

(8) Bounded set and its applications on functions, sequence and so on.

(9) Series of real functions and point-wise limit and uniform limit. And M_n test to proof that a series converges uniformly.

(10) Cauchy's principal of convergence of real sequence.