King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math-201 Semester-131 QUIZ V

NAME: S.No. ID:

Maximum Marks: 10 Section:11 Time Allowed: 40 minutes

(1) Find the local maxima, local minima and saddle points of the function $f(x,y) = \frac{1}{x^2+y^2-1}$.

(2) Use the method of Lagrangian mulipliers to find the point on the plane $x+2y+3z = 13$ closest to the point $(1,1,1)$.

(3) Evaluate the integral $\int_0^8 \int_{y^{\frac{1}{3}}}^2 e^{x^4} dxdy$.