**Mathematics in Economics**

**Written Exam – Part 1 – 30 points**

Name: …………………………………

1) Find the derivatives:

1. 6 points

2) Find the domain of the function of two variables:

6 points

3) Find Taylor series of at the point *a* = 2. 6 points

4) Find maxima/minima of the function: 6 points

5) Find the increment (find total differential) of the function for *x* = 1, *y* = 2, *dx* = 0.1 and *dy* = 0.2.

6 points