



**PHYSICS 132**

**Homework # 1**   **2nd. Semester 2015-16**

**NAME: STUDENT ID#:**

1- An electric dipole with dipole moment

**P** = (3.00**i**+4.00**j**) (1.25×10-3C.m)

Is in an electric field **E** = (6000 N/C)**i**.

1. what is the potential energy of the electric dipole?
2. what is the torque acting on it ?

c) If an external agent turns the dipole until its electric dipole moment is

**P** = (-4.00**i** +3.00**j**) (1.25×10-3C.m)

How much work is done by the agent?

from part (a)

and

Thus,