Oblig 6 / Assignment 6

Name: ……………………………………….

1) <u>Read</u> Chapt. 8 (p.34-39) in Lecture Notes "FYSMENA4111_LectNotes_2018".

2) <u>Derive</u> the Kohn-Sham equation, and explain each step in the derivations. You do not have to describe the functional derivatives since you already done that for the Hartree equation.

3) Assume we have the exact, true exchange-correlation functional $E_{xc}[n]$.
3a) what material properties can we calculate exact with the Kohn-Sham equation?
3b) what material properties may not be exactly described by the Kohn-Sham equation?