

#### Question 4 (guide file):

The mode of submission is a Jupyter Notebook, you will get the inline plots for the question in the tabs below the proof and method. The problem is quite basic and uses the ideas of central limit theorem and the moment generating functions.

I have shown the density function in the first set of plots (series of 4 plots) each containing two kernel density plots, one for the normal distribution and other for the poisson's distribution.

The last set of plots is something to explore the functionality of the seaborn package, it is basically displaying the equivalence of the approximation ; it may or may not be graded depending on the grader's will.