

Problem Set #4

TA Note: Please, be brief and keep your answers organized.

If you have any question, please email khoman@caltech.edu.

1. (4 points) Please, explain what the plasmid preparation is and which steps it's included?
2. (3 points) What is the difference between mini-, midi- and maxi-prep?
3. (5 points) Please, list at least five factors that could influence your DNA yield?
4. (3 points) What is the role of RNase in the buffer P1?
5. (4 points) Please, define the plasmid copy number.
6. (6 points) Explain briefly, what the purpose of EcoRI and NcoI digestion reaction is and what you expect to see on the gel. (You could draw hypothetical gel scheme to answer the question).