

Name: _____ Period: _____ Date: _____

Spring Final Review: Biotechnology

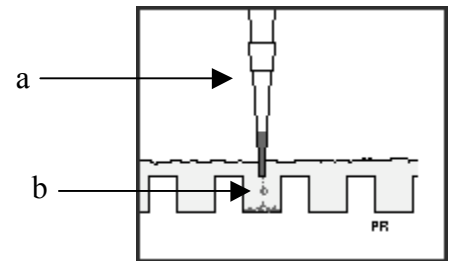
The scenario behind the DNA Fingerprinting Lab involves a crime scene from which a sample of DNA was taken. Samples were also taken from three suspects to see if the DNA could be matched with that found at the crime scene.

1. Briefly describe the function of the restriction enzyme used in the DNA fingerprinting lab.

2. The diagram below shows how a sample solution is placed into a well. Briefly describe each of the marked items.

a. _____

b. _____



3. What three factors can cause the DNA from the three suspects (and crime scene DNA) to run at different rates?

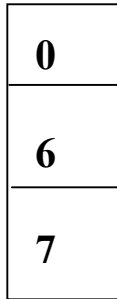
a. _____

b. _____

c. _____

4. Provide the correct readings for each of the pipette measurements given below in microliters. Then convert to milliliters.

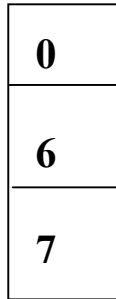
P-20



μl _____

ml _____

P-200



μl _____

ml _____

5. Why was it necessary to place the gel tray containing the DNA in a **charged** gel box with a positive and a negative side (as provided by the power supply)?
