### **Lab 1.2 Part B Separating Dyes using Gel Electrophoresis Protocol Using the HexaGel box**

1. Place the two plastic dividers into the HexaGel tank to separate the gel trays. They fit one way.

2. Place six gel trays containing 1% agarose gels into the HexaGel tank in the correct orientation (wells open on top and near the black/negative electrode). There will be three rows of two gels all oriented in the same direction. Remember “Run to Red”. Place the gel tank in an easily accessible location near the power supply as it cannot be moved once the samples are loaded into the wells.

3. Pour 1X SB Buffer until the gel is completely immersed. This will be approximately 1000ml for the HexaGel tank.

4. Set the P-20 micropipette to 10 μL, and using a fresh tip draw up 10µl of S1.

5. Dispense S1 into one of the wells being careful to lower the pipette tip just inside the buffer but not in the well. Depress the plunger to the first stop and hold it there until pulling it out of the buffer.

6. Change the tip and load 10µl of S2 into a second well.

7. Change the tip and load 10µl of S3 into a third well. Be sure to draw a gel map in your notebook.

S1 S2 S3



8. Carefully place the lid completely on the gel tank. Plug the electrodes into their respective ports on the power supply (red into red and black into black).

9. Turn on the power supply, set the Voltage to 135v and press “RUN”. The time may also be set to 20 minutes on some power supplies. Make sure that tiny bubbles are coming off the black/negative electrode in the tank.

10. Run the gel until the colored bands separate. Draw and color the band pattern in the notebook.