

1. Name the organelles in a typical animal cell that were discussed in MCB 150, and identify their primary function(s).
2. Draw a very crude evolutionary tree, showing humans, *E. coli* (a bacterium), and *Methanococcus jannaschii* (an archaea) dating back to their most recent common ancestor.
3. Asymmetry, semi-permeability and fluidity are the three major properties of biomembranes. Explain them using no more than two sentences for each property.
4. With the "scale of life" being so vast, explain why cell size remains within a fairly narrow range.
5. Compare and contrast the three major glucose polymers described in lecture.
6. Compare and contrast the two main types of nucleic acids.
7. Describe the 4 levels of protein organization and what type(s) of bonds or interactions can be found at each level.