Discussion Group #3: Quiz

1. (0.5 pts) Circle the sugar that the structure refers to:

   ![Sugar Structure]

   Glucose
   Galactose
   Fructose
   Sucrose

2. (0.5 pts) Does the structure represented in question one form an aldose or a ketose in straight-chain form?

   aldose

3. (1 point) How many different enantiomers does the following sugar have?

   ![Sugar Structure]

   4

Questions 4-5 are matching questions. Pick the one best answer from the lettered list (A-D) which best matches the question. Each question is worth 0.5 points.

4. alpha 1,2 linkages
   A. Glucose
   B. Sucrose
   C. Fructose
   D. Lactose

5. alpha 1,6 linkages
   A. Glucose
   B. Sucrose
   C. Fructose
   D. Glycogen

6. (2.0 points) Indicate below the reactions of glycolysis which either generate or utilize ATP. Specify the substrates and products for each reaction, as well as the direction in which the reaction proceeds.

   Glucose + ATP → Glucose 6-phosphate
   Fructose 6-phosphate + ATP → Fructose 1,6-bisphosphate
   Phosphoenolpyruvate + ATP → Pyruvate
   1,3-bisphosphoglycerate → 3-phosphoglycerate