

### **PRACTICE: GLUCOSE AND GLYCOGEN REGULATION**

14. The most sensitive indicator of the energetic status of a cell is:

- a. ATP.
- b. GDP.
- c. ADP.
- d. AMP.
- e. glucose.

15. The enzyme glycogen phosphorylase:

- a. catalyzes cleavage of  $\beta(1-4)$  bonds.
- b. catalyzes cleavage of  $\alpha(1-4)$  bonds.
- c. hydrolyzes glucose.
- d. catalyzes cleavage of  $\alpha(1-2)$  bonds.
- e. catalyzes cleavage of  $\beta(1-2)$  bonds.

16. Glycogen branching enzyme catalyzes the formation of:

- a.  $\alpha(1-2)$  bonds.
- b.  $\alpha(1-3)$  bonds.
- c.  $\alpha(1-4)$  bonds.
- d.  $\alpha(1-5)$  bonds.
- e.  $\alpha(1-6)$  bonds.

17. Glycogenin is:

- a. regulatory of glycogen synthase.
- b. catalyzes conversion of starch to glycogen.
- c. exceptionally large.
- d. the gene for glycogen synthase.
- e. the primer for glycogen synthesis

18. Glycogen phosphorylase-a can be allosterically inhibited by:

- a. cAMP.
- b. AMP.
- c. glucose.
- d. glucagon.
- e. GTP.

19. Phosphofructokinase-2 is inhibited by:

- a. glucose.
- b. ATP.
- c. insulin.
- d. cAMP.
- e. glucagon.