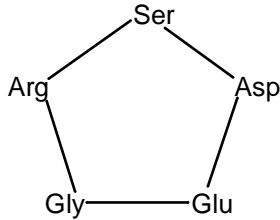


Answer Key Exam 1

Short answer section



- 1.
2. -1
3. I and III
4. **A** $\alpha(1,6)$ (left two sugars) **B** $\beta(1,2)$
5. There are two main properties that the compounds share. Both will form micelles in water and both will dissolve lipids in water. Both compounds have long hydrophobic (non-polar) tails and a charged (polar), hydrophilic head. The hydrophobic portion of the molecules excludes itself from water and will prefer to dissolve with other hydrophobic groups. The same goes for the polar portion, these groups will relate to themselves and other polar compounds (such as water). The structure of the micelle allows for full completion of both of these properties. Lipids (fats, grease etc) in the water will associate with the non-polar portions of molecules 1 and 2, become trapped within the micelles and seem to dissolve in the water.

Multiple Choice.

1. B 2. E 3. D 4. C 5. C 6. B 7. C 8. C 9. D

10. A or D. This question could have either answer. Answer A is the most correct, as it is the cause of C. D could be correct since there are enzymes that allow the reaction to follow a different mechanism. So D is not always incorrect.

11. C 12. A 13. C 14. B 15. A 16. D 17. B 18. C