

Name \_\_\_\_\_

Biology 1322

Nutrition

2<sup>nd</sup> Test

FILL IN THE BLANK

- 1-2. \_\_\_\_\_ (milk sugar) is created when \_\_\_\_\_ is bonded to glucose.
- 3-4. \_\_\_\_\_ (malt sugar) is created when \_\_\_\_\_ is bonded to glucose.
- 5-6. \_\_\_\_\_ (table sugar) is created when \_\_\_\_\_ is bonded to glucose.
7. \_\_\_\_\_ ("Animal starch"), a storage form of glucose, is stored in the liver and muscles.
8. Cellulose and lignin are polysaccharides known specifically as \_\_\_\_\_.
9. Maltase, sucrase, and lactase are \_\_\_\_\_ used in carbohydrate digestion.
10. When carbohydrate intake is insufficient, fat breakdown is accelerated. The fat fragments often combine to form \_\_\_\_\_, an alternate energy source.
- 11-12. Blood glucose homeostasis is regulated by two hormones: \_\_\_\_\_, which moves glucose from the blood into the cells; and \_\_\_\_\_, which brings glucose out of storage.
13. An abnormally low blood glucose concentration can result in a condition known as \_\_\_\_\_.
14. \_\_\_\_\_ effect describes the effect of a food on blood glucose- How quickly absorbed, how quickly blood glucose rises.
15. \_\_\_\_\_ fats are those which are loaded with the maximum number of hydrogen atoms.
16. Unsaturated fats are sometimes partially \_\_\_\_\_ for extended shelf life or improved texture.
17. \_\_\_\_\_ lipoproteins distribute their contents to muscle tissue, fat storage sites.

18. \_\_\_\_\_ lipoproteins transport cholesterol back to the liver for recycling or disposal.
19. \_\_\_\_\_ amino acids must be supplied in the diet because the body can't synthesize them adequately.
20. A \_\_\_\_\_ protein is one that contains all the essential amino acids in about the amounts humans require.

TRUE OR FALSE

- \_\_\_\_\_ 21. Curdling of milk and stiffening of egg whites are examples of protein deamination.
- \_\_\_\_\_ 22. Hydrochloric acid in the stomach activates enzymes, thus breaking down peptide bonds in protein.
- \_\_\_\_\_ 23. Amino acids can be converted into fat following removal of the amino group.
- \_\_\_\_\_ 24. Lysine, methionine, and tryptophan are often deficient in grain-based diets.
- \_\_\_\_\_ 25. Polyunsaturated fats have been strongly implicated in heart disease problems.
- \_\_\_\_\_ 26. Saturated fats are usually solid at room temperature.
- \_\_\_\_\_ 27. Type 2 diabetes is often associated with obesity because fat cells resist the effects of insulin.
- \_\_\_\_\_ 28. Hard candy, which remains in the mouth for prolonged periods of time, is less likely to promote tooth decay than is brittle candy eaten quickly.
- \_\_\_\_\_ 29. Unbranched starches supply quicker energy release than do branched starches.
- \_\_\_\_\_ 30. Cholesterol is abundant in beans, peas, and coconut oil.
- \_\_\_\_\_ 31. Trans-fatty acids are currently considered among the least likely to cause heart problems.
- \_\_\_\_\_ 32. Four hours after eating a meal, fat stores are likely supplying most of the body's energy needs.
- \_\_\_\_\_ 33. Enzyme-treated milk products, yogurt, and cottage cheese may be consumed by patients struggling with lactose intolerance.

## DISCUSSION

- A. Describe the nutritional and health benefits provided by dietary fiber.
- B. What causes lactose intolerance? Why is buttermilk less likely to upset the digestive system of people who are lactose intolerant?
- C. While a vegetarian diet can be adequate, it is more challenging to manage; in fact, someone with access and understanding of dietary tables should be carefully planning such diets. Why is this?
- D. Most people recognize fat when it appears as a layer covering the outside edge of a steak or pork chop. But fat "sneaks" into meals in many much less obvious ways. Describe some of these.