

## Module 03 Quiz: Biomolecules

Name: \_\_\_\_\_ Date: \_\_\_\_\_

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### Part A: Multiple Choice (7 points)

*Choose the best answer for each question. (1 point each)*

1. The building blocks of proteins are:
2. A) Nucleotides
3. B) Monosaccharides
4. C) Amino acids
5. D) Fatty acids
6. Which reaction joins monomers together to form polymers?
7. A) Hydrolysis
8. B) Dehydration synthesis
9. C) Oxidation
10. D) Neutralization
11. Which biomolecule makes up cell membranes and stores long-term energy?
12. A) Carbohydrates
13. B) Proteins
14. C) Lipids
15. D) Nucleic acids
16. DNA and RNA are examples of:
17. A) Lipids
18. B) Carbohydrates

- 19. C) Proteins
  - 20. D) Nucleic acids
  - 21. Which polysaccharide is found in plant cell walls?
  - 22. A) Glycogen
  - 23. B) Starch
  - 24. C) Cellulose
  - 25. D) Chitin
  - 26. The shape of a protein is MOST directly determined by:
  - 27. A) Its amino acid sequence
  - 28. B) The number of fatty acids
  - 29. C) The number of nucleotides
  - 30. D) Water content
  - 31. An unsaturated fat differs from a saturated fat in that it contains:
  - 32. A) No carbon atoms
  - 33. B) Double bonds between carbons
  - 34. C) Only single bonds
  - 35. D) More hydrogen atoms
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## **Part B: Free Response (3 points)**

*Answer each question in complete sentences.*

1. (1 point) Explain the difference between dehydration synthesis and hydrolysis. When is each used in the body?
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1. (1 point) Compare the structure and function of three different types of carbohydrates (monosaccharides, disaccharides, and polysaccharides).

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1. (1 point) Why is protein shape important for protein function? What can cause a protein to lose its shape?

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