

# Module 04 Quiz: Cellular Function

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

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## Part A: Multiple Choice (7 points)

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

1. Which organelle is called the "powerhouse" of the cell?
2. A) Nucleus
3. B) Ribosome
4. C) Mitochondrion
5. D) Golgi apparatus
6. Plant cells differ from animal cells in that plant cells have:
7. A) Mitochondria
8. B) Ribosomes
9. C) Cell walls and chloroplasts
10. D) A nucleus
11. Ribosomes are the site of:
12. A) Photosynthesis
13. B) Protein synthesis
14. C) Lipid synthesis
15. D) DNA replication
16. Which organelle packages and modifies proteins for export?
17. A) Rough endoplasmic reticulum
18. B) Smooth endoplasmic reticulum

- 19. C) Golgi apparatus
  - 20. D) Lysosome
  - 21. The cell membrane is primarily composed of:
  - 22. A) Carbohydrates
  - 23. B) Phospholipids
  - 24. C) Nucleic acids
  - 25. D) Starch
  - 26. Prokaryotic cells differ from eukaryotic cells because prokaryotes lack:
  - 27. A) Ribosomes
  - 28. B) Cell membranes
  - 29. C) A membrane-bound nucleus
  - 30. D) DNA
  - 31. Which organelle contains digestive enzymes that break down waste?
  - 32. A) Ribosome
  - 33. B) Lysosome
  - 34. C) Chloroplast
  - 35. D) Central vacuole
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## **Part B: Free Response (3 points)**

*Answer each question in complete sentences.*

- 1. (1 point) Explain the difference between prokaryotic and eukaryotic cells. Give an example of each.
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1. (1 point) Describe the path a protein takes from its synthesis to secretion from the cell (include at least 3 organelles).

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1. (1 point) What is the endosymbiotic theory? What evidence supports it?

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