

Module 04 Quiz: Cellular Function

Name: _____ Date: _____

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

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).

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