

Every question is 1 point unless otherwise stated

TOTAL POINTS: 83

1. Centrioles
2. Nucleus
3. Nucleolus
4. Nuclear membrane
5. Lysosome
6. Smooth ER
7. Golgi Body
8. Rough ER
9. Ribosome
10. Cytoplasm
11. Cellular membrane
12. Mitochondria
13. Microtubule
14. Transmission Electron Microscope (TEM)
15. Scanning Electron Microscope
16. Light microscope
17. Phase contrast microscope
18. Fluorescence microscope
19. 2
20. 1
21. 5
22. 4
23. 6
24. 3
25. 7
26. E. Coli (or check Google for their answer)
27. NW
28. Diaphragm
29. (3 points - 1 for each piece of evidence) Mitochondria are similar in size to bacteria, Mitochondria and chloroplasts' DNA, RNA, ribosomes, chlorophyll, and protein synthesis are similar to that of bacteria
  - a. Mitochondria and purple-aerobic bacteria both use oxygen in production of ATP through Kreb's Cycle and Oxidative phosphorylation
  - b. Both have double phospholipid bilayers
30. (4 points) Lag, log/exponential, stationary, death
31. Virus
32. Fungus
33. Prion
34. Virus
35. Virus
36. Fungus

37. Protozoan  
 38. Bacteria  
 39. Bacteria  
 40. Parasitic Worm  
 41. See diagram: diplococci

42. Vibrio  
 43. Coccobacillus  
 44. Spirochete  
 45. Sarcina  
 46. Streptobacilli

47. (2 points) Genome separated into  
**8 segments** of RNA = easily  
 mutated

48. (5 points) characterized by loss of  
 motor control, dementia,  
 paralysis, wasting and eventually  
 death

49. (2 points) Bacteria cell walls have  
 peptidoglycan - archaea do not  
 have peptidoglycan

50. (2 points) Prokaryotic - no nuclear membrane, no membrane bound organelles, has  
 plasmids, different ribosomes, smaller  
 Eukaryotic - yes membranes, membrane bound organelles, no plasmids, larger  
 ribosomes, larger in general

51. 99

52. Proteinaceous infectious particles

53. 53-64: →

65. Objective lenses

66. RNA

67. None

68. RNA

69. RNA

70. DNA

71. RNA

