

AP BIO Chapter 4 and 5 ANSWERS

1. PROTEINS

2. microtubules of cytoskeleton
3. plasma membrane, ribosomes, cytoskeleton, DNA
4. e- mitochondria don't make steroids
5. a- smooth ER doesn't assemble amino acids
6. E- Na^+ transport
7. central vacuole
8. C- mitochondria
9. E- facilitated diffusion
10. A- small nonpolar
11. proton pumps
12. D- plasmodesmata
13. Lysosomes
14. centrioles
15. mitochondria & chloroplasts

Mito/chloro/bacteria all have single circular chromosome, reproduce using binary fission
internal organelle membranes have similar phospholipids to prokaryotes; similar smaller ribosomes

16. D. diffusion
17. phospholipid tails
18. hypertonic
19. cytolysis
20. osmosis
21. shrink smaller (crenation-animal; plasmolysis-plant)
22. $d\text{H}_2\text{O}$ $\Psi = 0$
potatoes sucrose $\Psi_s = (1) (0.2) (0.0831) (273+25)$
water will enter cells
23. cotransport
24. phagocytosis
25. proton pumps are active
26. Swell & burst; cytolysis
27. ion channels; Na^+ - K^+ pump
28. phosphorylation (add phosphate groups)
29. B
30. Reception-transduction-response
31. E testosterone (steroid hormone)
32. D glucose will move from B to A
33. D- CO_2
34. Na^+ - K^+ pump
35. cAMP ; ion channels