

Answer key for 2002 exam

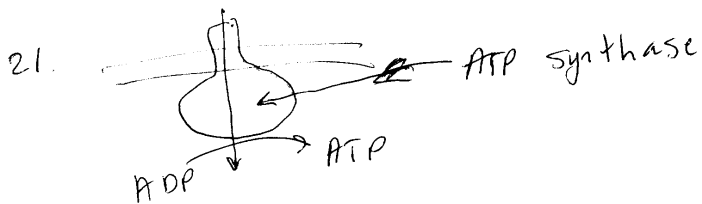
1. A
2. D
3. D
4. C
5. D
6. D
7. A
8. C
9. B
10. T
11. Regulated constancy
12. By lowering activation energy; stabilize unstable intermediates
13. Tryptophan
14. A. Nucleus
B. Sequence of bases in DNA is information used to replicate DNA, and to make RNA \rightarrow protein
15. Hypertonic
out of the cell
16. A. into the cell
B. more positive
17. Na⁺/K⁺ ATPase



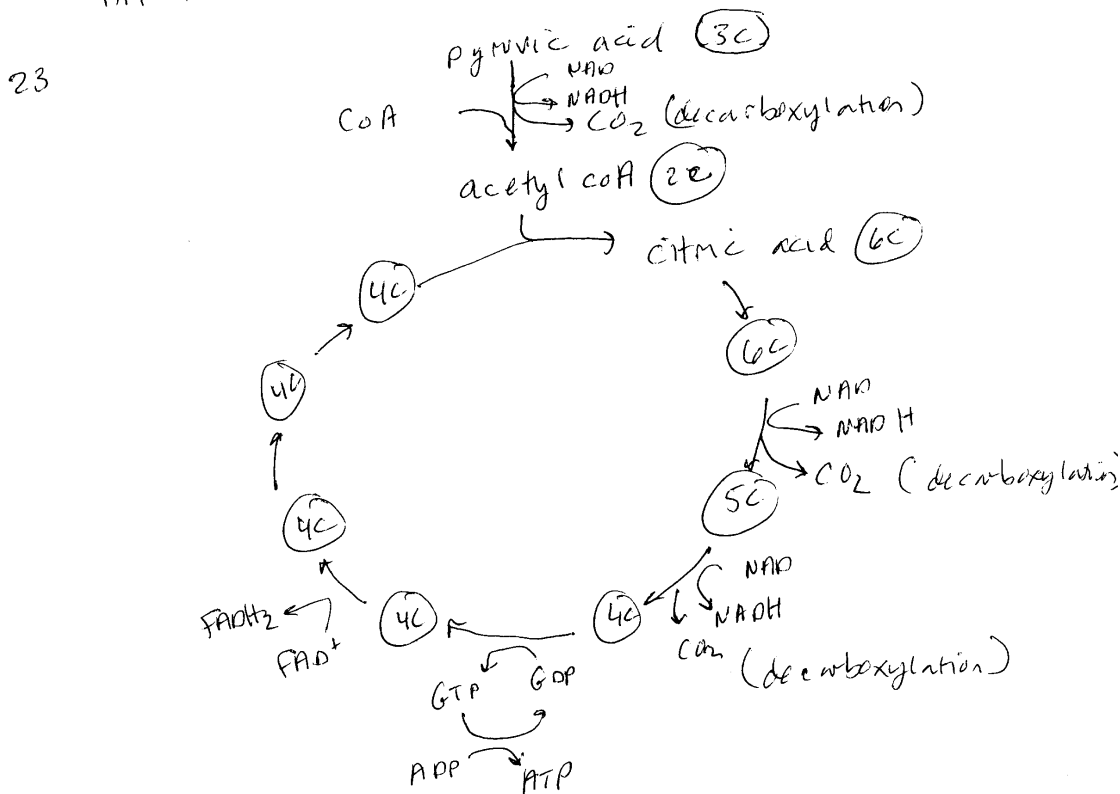
18. Ion channel
within a cellular compartment (inside the cell)
19. Passive diffusion: Substance moves down (with) its concentration gradient; no energy required
Active transport: Substance moves up (against) its concentration gradient; energy is required

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20. NAD/NADH & FAD/FADH₂
O₂

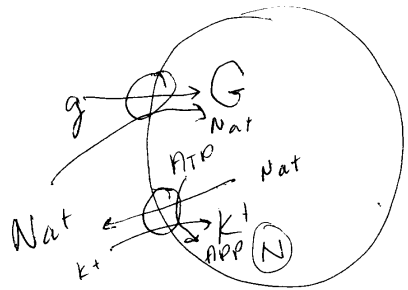


22. "X" = H⁺
intermembrane space



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A. 2^o active transport glucose



1) Na⁺/K⁺ ATPase uses energy (ATP) to create concentration gradient for Na⁺ (Na conc. higher outside cell).

2) Na⁺ gradient is used to drive glucose into cell against its gradient, using a cotransporter.

B.

