



# قناة Medicine Way

افضل قناة للكتب الطبية في الوطن العربي



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## ***Phase (1) respiration (krebs cycle)***

1. *Which of the following is important in transferring energy from glycolytic pathway to TCA cycle:*
  - a) NADH+H
  - b) FADH<sub>2</sub>
  - c) citrate
  - d) acetyl coA
  
2. *CO<sub>2</sub> isn't produced in the reaction catalyzed by the enzyme:*
  - a) pyruvate dehydrogenase
  - b) succinate dehydrogenase
  - c) isocitrate dehydrogenase
  - d)  $\alpha$ - ketoglutrute dehydrogenase
  
3. *How many ATP molecules are produced on complete oxidation of acetyl coA in citric acid cycle*
  - a) 6
  - b) 3
  - c) 12
  - d) fifteen
  
4. *The following cofactors are not associated with pyruvate dehydrogenase complex:*
  - a) NAD
  - b) FAD
  - c) Lipoic acid
  - d) Biotin
  
5. *The following enzyme participate in substrate level phosphorylation:*
  - a) isocitrate dehydrogenase
  - b) malate dehydrogenase
  - c) aconitase
  - d) succinate thiokinase

6. *Thiamine is important in conversion of*
- a) pyruvate to acetyl coA
  - b)  $\alpha$ - ketoglutrute into succinyl coA
  - c) all of the above
  - d) non of the above
7. *All of the following are intermediate of citric acid cycle except:*
- a) oxaloacetate
  - b)  $\alpha$ - ketoglutrute
  - c) malate
  - d) pyruvate
8. *Tri-carboxylic acid cycle to be continued requires the regeneration of*
- a)  $\alpha$ - ketoglutrute
  - b) oxaloacetate
  - c) succinyl coA
  - d) pyruvate
  - e) malic acid
9. *Dehydrogenation of succinic acid to fumaric acid requires the following hydrogen acceptor:*
- a) NAD
  - b) NADP
  - c) FAD
  - d) PLP
  - e) GLUTATION
10. *How many ATP molecules are produced on complete oxidation of pyruvic acid in citric acid cycle:*
- a) 6
  - b) 3
  - c) 12
  - d) fifteen
11. *How many ATP molecules are produced on complete oxidation of glucose:*
- a) 6
  - b) 38

- 
- c) 12
  - d) 20

***12. The following cofactors are not associated with pyruvate dehydrogenase complex:***

- a) NADP
- b) FAD
- c) Lipoic acid
- d) thiamin (TPP)

***13. The only enzyme of TCA that produce FADH<sub>2</sub> is:***

- a) succinate dehydrogenase
- b) isocitrate dehydrogenase
- c)  $\alpha$  ketoglutarate dehydrogenase

***14. The only enzyme of TCA that attached to inner mitochondrial membrane is:***

- a) succinate dehydrogenase
- b) isocitrate dehydrogenase
- c)  $\alpha$  ketoglutarate dehydrogenase

***15. The only enzyme of TCA that produce GTP is:***

- a) succinate dehydrogenase
- b) isocitrate dehydrogenase
- c) succinyl coA synthetase (succinate thiokinase)

***16. Pyruvate dehydrogenase complex is located in :***

- a) cytoplasm
- b) inner mitochondrial membrane
- c) mitochondrial matrix

***17. Pyruvate dehydrogenase complex is active in .....state***

- a) phosphorylated
- b) dephosphorylated

***18. Krebs cycle occurs in***

- a) cytoplasm
- b) inner mitochondrial membrane
- c) mitochondrial matrix

*19. All of the following are key enzymes of TCA except:*

- a) succinate dehydrogenase
- b) isocitrate dehydrogenase
- c)  $\alpha$  ketoglutarate dehydrogenase
- d) citrate synthase

*20. Malonate inhibits:*

- a) succinate dehydrogenase
- b) isocitrate dehydrogenase
- c)  $\alpha$  ketoglutarate dehydrogenase
- d) citrate synthase

*21. .... Is used in heme synthesis*

- a) pyruvate
- b) malate
- c) succinyl coA

## Answers

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|         |         |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1<br>D  | 2<br>B  | 3<br>C  | 4<br>D  | 5<br>D  | 6<br>C  | 7<br>D  | 8<br>B  | 9<br>C  |
| 10<br>D | 11<br>B | 12<br>A | 13<br>A | 14<br>A | 15<br>C | 16<br>C | 17<br>B | 18<br>C |
| 19<br>A | 20<br>A | 21<br>C | 22<br>C | 23<br>C | 24<br>C |         |         |         |