



10. Assertion (A): All bacteria are anaerobic ()

Reason (R): Mitochondria responsible for aerobic respiration are absent in prokaryotes

1. Both A & R are true R is the correct explanation of A
2. Both A & R are true R is not the correct explanation of A
3. A is true but R is wrong
4. A is wrong but R is true.

11. True statement regarding glycolysis is ()

- A. No oxygen is used in this process
- B. Glucose does not undergo oxidation
- C. Glucose is phosphorylated
- D. DHAP cannot participate in substrate level phosphorylation

1. A & B
2. A & C
3. C & D
4. A, C & D

12. The first formed substance in Kreb's cycle is ()

1. OAA
2. Citric acid
3. Acetyl Co-A
4. Pyruvic acid

13. The co factor that does not participate in the formation of acetyl Co-A is ()

1. NAD^+
2. Co-A
3. NADPH
4. Mg^+

14. Aconitase enzyme participates in ()

1. Dehydration
2. Both dehydration and hydration
3. Cleavage and dehydration
4. Oxidation and hydration

15. False statement regarding citric acid cycle ()

- A. All enzymes of citric acid cycle are present in matrix of mitochondria
- B. Oxygen is reduced to water
- C. After complete oxidation of glucose six CO_2 are released here.
- D. This pathway involved both in catabolism and anabolism.

1. A & B
2. B & C
3. A, B & C
4. A, B, C & D

16. α ketoglutaric acid after oxidation releases ()

1. CO_2 and NADH_2
2. CO_2 and Co-A
3. FADH_2 and Co-A
4. CO_2 and FADH_2

17. Glucose, a six carbon compound releases 6 CO_2 after complete oxidation.

α ketoglutaric acid, a 5 carbon compound releases ()

1. One CO_2
2. Five CO_2
3. Three CO_2
4. Four CO_2

18. Assertion (A): Citric acid cycle is amphibolic pathway ()

Reason (R): In this, both oxidation and reduction reactions takes place

1. Both A & R are true R is the correct explanation of A
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4. A is wrong but R is true.

19. Match the following ()

	List I		List II
A	Fumarase	I	Survives only on glycolysis
B	F ₁ particle	II	Affinity for molecular oxygen
C	<i>Clostridium</i>	III	Water as substrate
D	Complex IV	IV	Membrane bound complex
		V	Smallest rotator y machine

- | | |
|---|--|
| A B C D
1. IV III II I
3. II V III IV | A B C D
2. III IV I II
4. II III IV V |
|---|--|

20. If Glycerol has to be respired, it enters the respiratory cycle as ()

1. Acetyly- Co-A
2. Pyruvic acid
3. DHAP
4. GAP

21. Number of ATP released when all the electron carriers formed in the cytosol and mitochondria entered the electron transport ()

1. 30
2. 32
3. 40
4. 28

22. True statement regarding R.Q values ()

- A. It is an index of nature of respiratory substrate
- B. It is the ratio of O₂ released to that of CO₂ utilized
- C. R.Q values of organic acids are always more than one
- D. It is also an index of amount of respiratory substrate

1. A & B
2. B & C
3. C & D
4. A & C

32. In oxygen intolerant bacteria the end product of respiration is ()

1. Pyruvic acid 2. Ethyl alcohol 3. 2 ATP 4. 3 ATP & NADH

33. Match the following ()

	List I		List II
A	Complex I	I	Succinate ubiquinone oxydoreductase
B	Complex II	II	Cytochrome 'C' reductase
C	Complex III	III	NADH-ubiquinone oxydoreductase
D	Complex IV	IV	ATP synthase
		V	Cytochrome 'C' oxydase

- | | | | | | | | | | |
|----|-----|---|----|---|----|-----|-----|----|----|
| | A | B | C | D | | A | B | C | D |
| 1. | III | I | II | V | 2. | III | II | I | IV |
| 3. | III | V | II | I | 4. | I | III | IV | V |

34. ATP formation during respiration takes place in ()

1. Matrix of mitochondria 2. Matrix of mitochondria and cytosol
3. In the inter membrane space 4. Cytosol and inter membrane space

35. Proteins involving in translocation of protons across the membrane resulting in creation of proton motive force is ()

1. Ubiquinone
2. Complex I and ubiquinone
3. Ubiquinone, complex I and complex IV
4. Ubiquinone, complex I, complex IV and complex V

36. FADH_2 when enters electron transport number of protons translocates across the membrane are ()

1. 6 2. 10 3. 8 4. 3

37. Disruption of ATP synthase affects ()

- A. Water formation B. ATP synthesis
C. Proton gradient D. Electron transport
1. A & B 2. B & C 3. C & D 4. A & D

38. When fumaric acid is introduced into Kreb's cycle ()

1. One molecule of water is utilized and one molecule of NADH_2 is released
2. One FADH_2 and one NADH_2 is released
3. One NADH_2 is released
4. One molecule of H_2O and one molecule of NADH_2 are released

39. Assertion (A): Citric acid cycle shows both tricarboxylic and dicarboxylic acids

Reason (R): Tricarboxylic acids loose CO_2 ()

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2. Both A & R are true R is not the correct explanation of A
3. A is true but R is wrong
4. A is wrong but R is true.

40. Proteins enter respiratory chain as ()

1. GAP
2. DHAP
3. PEP
4. Acetylye Co-A

Respiration--Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	2	3	4	3	2	3	3	3	4	4	2	3	2	3	1	1	3	2	4
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
2	4	1	2	3	3	3	1	1	2	2	2	1	2	3	1	2	1	1	4