

7. What do inhibitors of complex III of electron transport system in oxidative phosphorylation do?
- a. Blocks the transfer of reducing equivalents from Fe-S to ubiquinone-Q
 - b. Prevents transfer of electrons from cytochrome aa3 to molecular oxygen
 - c. ETC takes place but inhibits phosphorylation
 - d. Prevent transfer of electrons from cytochrome b to cytochrome C1
8. Which of the following supplies the two carbon units that are added to the elongation of fatty acids?
- a. Acetyl CoA
 - b. Malonyl CoA
 - c. β -keto-acylCoA
 - d. Pyruvate
9. ATP synthase activity is associated with the mitochondrial enzyme complex:
- a. IV
 - b. II
 - c. V
 - d. III
10. What is the function of phosphorylase?
- a. Transfer inorganic phosphate
 - b. Transfer a carboxylate group
 - c. Use H₂O₂ as the electron acceptor
 - d. Transfer amino group

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(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

1. Justify why ATP is considered as the energy currency of the cell. 5
2. Describe the various steps of β -oxidation of saturated fatty acid. 8+2=10
Why it is called as the most energy yielding process of biological oxidation? Justify.
3. Write correct answers. 5+5=10
 - a) Buffer does not allow any change of pH in a chemical reaction. Justify why?
 - b) Role of pyruvate dehydrogenase complex in the conversion of pyruvate to acetyl CoA during respiration.
4. Discuss the process of ATP production by electron transport in aerobic respiration. 10
5. Discuss the role of Fatty acid synthatase in various steps of biosynthesis of fatty acid. 10

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