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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (BT) (2018 Batch) (Sem.-3)

BIOCHEMISTRY

Subject Code : BTBT304-18

M.Code : 76948

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**Write briefly :**

1. Why does the starch appear blue when iodine solution is added to it?
2. How are anomers different from epimers? Give suitable example.
3. What are Fat Soluble Vitamins?
4. Which amino acids exhibit an absorbance at 280 nm?
5. Why does glucose molecule get phosphorylated in glycolysis?
6. Which enzymes are present in aerobic nitrogen fixing organisms? What is their role?
7. During fatty acid synthesis how is acetyl CoA transported to cytosol?
8. How is urea cycle linked to citric acid cycle?
9. What is Glyoxylate Cycle?
10. What are essential Fatty Acids? Give example of an essential fatty acid.

SECTION-B

11. Highlight the differences between electron transport chain of Mitochondrion and Chloroplasts.
12. Write a brief account on Pyruvate dehydrogenase complex and its role in carbohydrate metabolism.
13. Explain the role of Carnitine in fatty acid oxidation.
14. Differentiate between C3 and C4 pathway in plants.
15. How is fatty acid molecule synthesised starting from Acetyl CoA?

SECTION-C

16. Discuss the chemiosmotic coupling hypothesis given by Peter Mitchell and explain the mechanism of ATP synthesis.
17. Discuss the steps involved in isolation and purification of protein from soyabean seeds.
18. Elaborate in detail the various components involved in the Electron Transport Chain.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.