

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
B.Sc. Winter 2018-19 Examination

Semester: 2
Subject Code: 11103151
Subject Name: Biochemistry-II

Date: 12/12/2018
Time: 10.30 To 1.00
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Explain citric acid cycle with diagram. (08)**
- Q.1. B) Answer the following questions (Any two)**
- a) 1. Draw a chart of glycolytic pathway. (04)
 2. Short note on coenzymes.
- (b) Write a short note on classification of enzymes with suitable examples. (04)
- (c) Write a brief note on catabolism. (04)
- Q.2. A) Answer the following questions.**
- (a) Fill in the blanks. (04)
1. Vitamin E (tocopherol) is a naturally occurring _____.
 2. _____ is a precursor for the synthesis of acetylcholine which is required for transmission of nerve impulse.
- (b) Short note on deficiency of vitamins A. (04)
- Q.2. B) Answer the following questions (Any two)**
- (a) 1. Names of fat soluble & water soluble vitamins. (03)
2. What is the net ATP yield from complete oxidation of Palmitic acid.
 3. What is the function of peroxisomes.
- (b) Give any three biochemical functions of Vitamin D. (03)
- (c) What are the four reactions involved in beta-oxidation proper. (03)
- Q.3. A) Brief note on Deamination. (08)**
- Q.3. B) Answer the following questions (Any two)**
- (a) Short note on the following: (04)
1. Ammoniotelic
 2. Uricotelic
- (b) Describe salient features of transamination. (04)
- (c) What is protein turn over. (04)
- Q.4. A) Answer the following questions.**
- (a) Fill in the blanks. (04)
1. The deficiency of adenosine deaminase (ADA) causes _____ involving T-cell and usually B-cell dysfunction.
 2. _____ is a complex disease characterized by thickening of arteries due to the accumulation of lipids
- (b) Explain disorders related to carbohydrates metabolism. (04)
- Q.4. B) Answer the following questions (Any two)**
- (a) Write a short note on (03)
1. Hyperglycemia
 2. Hypoglycemia
 3. Inborn error of protein metabolism
- (b) Discuss the metabolic disorder related to lipid metabolism. (03)
- (c) Explain disorders related to pyrimidine metabolism. (03)