

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
B.Sc.Summer2017-18 Examination

Semester: 5
Subject Code: 11103303
Subject Name: Nutritional Biochemistry

Date: 26 /05/2018
Time: 02:00PM TO 04:30PM
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) Essay type (08)**
(a) Biochemical functions of carbohydrate in diet.
- Q.1. B) Answer the following questions (Any two)**
- (a) Describe the following terms: (Each of 02 marks) (04)
1. Hypoglycemia
 2. Give one importance of dietary fiber in food.
- (b) Regulation of blood glucose level (04)
- (c) Utilization of absorbed carbohydrates in the body (04)
- Q.2. A) Answer the following questions.**
- (a) Define the following with one example (Each of 02 marks) (04)
1. Essential fatty acids
 2. Unsaturated fatty acids
- (b) Storage of lipids (04)
- Q.2. B) Answer the following questions (Any two)**
- (a) Multiple choice questions. (Each of 01 marks) (03)
1. _____ are a class of essential polyunsaturated fatty acids with the double bond in the third carbon position from the methyl terminal.
A. Delta- 3 fatty acids
B. Alpha-3 fatty acids
C. Omega-3 fatty acids
D. All of the above
 2. Fatty acids and cholesterol are mainly _____.
A. Tissue lipids
B. Blood lipids
C. Lipoproteins
D. Glycolipids
 3. Consumption of _____ is thought to increase the risk of atherosclerosis.
A. Poly unsaturated fatty acids
B. Starch
C. Omega 3 fatty acids
D. Trans fatty acids
- (b) Short note: Biochemical function of fats (03)
- (c) Describe the role of liver in lipid metabolism (03)
- Q.3. A) Essay type (08)**
(a) Nutritional significance of amino acids.
- Q.3. B) Answer the following questions (Any two)**
- (a) Do as directed (2x2) (Each of 02 marks) (04)
1. Give full form of PER and NPR in context to proteins.
 2. Define non-essential amino acids.
- (b) Complementary value of proteins. (04)
- (c) Short note: Biological value. (04)

Q.4. A) Answer the following questions.

(a) Fill in the blanks. (Each of 02 marks)

(04)

1.Scurvy is caused by deficiency of Vitamin _____.

2.A swelling of the neck resulting from enlargement of the thyroid gland due to iodine deficiency is seen in _____ disease.

(b) Short note: Biochemical function of water

(04)

Q.4. B) Answer the following questions (Any two)

(a) Give one biological function of the following minerals.(Each of 01 marks)

(03)

1.Calcium

2.Iron

3.Sodium

(b) Short note:Cardiovascular disease

(03)

(c) Describe: Detoxification

(03)