Total number of printed pages-3

34 (1) BIOC 1.3

2018

BIOCHEMISTRY

Full Marks: 80

Time: Three hours

The figures in the margin indicate full marks for the questions.

GROUP-A

- I. Essay Type Questions: Answer **any two** $10 \times 2 = 20$
- 1. Classify Carbohydrate with suitable examples. Add a note on Mucopolysaccharides.
- 2. Define Enzymes. Classify them with suitable examples.
- 3. Describe the sources, daily requirements, functions and deficiency manifestations of Vitamin D.

Contd.

GROUP-B

- II. Answer any eight questions: 5×8=40
- 1. Write a note on Liver Function Test.
- 2. Describe the different Buffer systems in our body.
- 3. Describe the mechanism of hormone action in the body.
- 4. What is Enzyme Inhibition? Explain.
- 5. What is Collagen? Discuss its role in our body.
- 6. Calculate the energy requirement of a person with sedentary work on a mixed diet with BMR 30 cal/sq.m./hr and body surface area of $1.7m^2$.
 - 7. Enumerate functions of
 - (a) Calcium and
 - (b) Phosphorus.
 - 8. Discuss the process of muscle contraction.
 - 9. What are essential and non-essential amino acids? Give *two* examples of each type.
 - 10. Describe the transport mechanism across the cell membrane.

GROUP-C

- III. Answer **all** the **ten** questions: $2 \times 10 = 20$
- 1. What is Balance Diet?
- 2. Define BMR. How many calories are required for an adult male to maintain BMR?
- 3. What is Cori cycle?
- 4. What is Lactose intolerance?
- 5. Define lipogenesis.
- 6. Define ketone bodies.
- 7. What are the functions of DNA?
- 8. What are the normal blood glucose levels?
- 9. What is PUFA? Give examples.
- 10. What is fatty liver?