

Total number of printed pages-4

34 (1) BIOC 1-3

2021

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**)
10×2=20
1. What is Urea cycle? Describe the synthesis of urea in the body.
2. Describe in details, the steps of citric acid cycle. Why is it called as common metabolic pathway?
3. Describe the sources, daily requirements, functions and deficiency manifestations of Vitamin C.

Contd.

GROUP-B

II. Answer **any eight** questions : 5×8=40

1. Define Buffer. Describe about the different buffer systems in the body.
2. Describe the factors affecting the enzyme action.
3. Enumerate Liver function test.
4. Write the important structural and functional differences between DNA and RNA.
5. Discuss the process of muscle contraction.
6. Calculate the energy requirement of a person doing moderate work. (Weight of the person = 60kg)
7. Enumerate functions of—
 - (a) Calcium
 - (b) Phosphorus.
8. Write short notes on : **(any two)**
 - (a) Cholesterol
 - (b) Triacylglycerol
 - (c) Phospholipid.

9. Write a note on biologically important peptides.
10. What is the role of ADH and thirst center in the regulation of water balance?

GROUP-C

III. Answer **all** the questions : 2×10=20

1. What is Lactose intolerance?
2. Define Osmolarity.
3. What do you mean by Respiratory quotient?
4. What do you understand by the terms—
 - (a) Glycosidic bond?
 - (b) Zwitterion?
5. What is Cori cycle?
6. Define Ketone bodies.
7. What is PUFA? Give examples.
8. Define Lipogenesis.

9. Give the equation most commonly employed in enzyme kinetics with regard to K_m .

10. Define Proteoglycans.
