

2 SEM TDC ZOO M 1

2020

ZOOLOGY

(Major)

Course : 201

(Biochemistry)

Full Marks : 48

Pass Marks : 14

Time : 2 hours

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

1. (a) Fill in the blanks : 1×5=5
- (i) A solution that resists change in pH is called ____.
 - (ii) The disaccharide sugar found in milk is ____.
 - (iii) The electron transport chain is present in ____.
 - (iv) Most enzymes are chemically ____.
 - (v) Structural proteins associated with DNA are ____.

(2)

(b) Write short notes on any *two* of the following : 4×2=8

(i) High energy phosphates

(ii) Enzyme inhibition

(iii) Structure of DNA (Watson and Crick model)

2. Write a note on the basic chemistry of water. Discuss the role of water in biological systems. 3+4=7

Or

State the laws of thermodynamics. Discuss the application of any one of these laws in biological system. 3+4=7

3. Define carbohydrates. Write how carbohydrates are classified. 2+5=7

4. Why Krebs' cycle is called TCA cycle? Write the various reactions of Krebs' cycle. 1+6=7

Or

Discuss the reactions of β -oxidation of fatty acids. 7

5. How do fat-soluble vitamins differ from water-soluble vitamins? Discuss the sources and functions of vitamin B complex. 2+5=7

(3)

6. Write an experiment to prove that DNA is the genetic material. 7

Or

What is replication? Discuss the mechanism of replication in a prokaryotic cell. 1+6=7
