

Total No. of Printed Pages—7

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(May)

ZOOLOGY

(Major)

Course : 201

Time : 2 hours

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

(New Course)

(**BIOCHEMISTRY**)

Full Marks : 48

Pass Marks : 14

1. (a) Fill up the blanks : 1×5=5

(i) The non-protein part of a conjugated protein is called ____.

(ii) Water is a ____ compound.

(iii) Randomness or disordered state of energy is known as ____.

(2)

(iv) Night blindness is caused due to the deficiency of vitamin ____.

(v) The pH of human blood is ____.

(b) Differentiate between the following : $2 \times 4 = 8$

(i) Heteropolysaccharides and Homopolysaccharides

(ii) Essential and non-essential amino acids

(iii) Nucleosides and Nucleotides

(iv) Acid and Base

2. What is energy-rich compound? State the role of energy phosphates as the 'energy currency' of the cell.

$1+6=7$

Or

Briefly describe the uses of thermodynamics in biological system.

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(Continued

(3)

3. Define lipid. Give a brief classification of lipids with examples. $1+6=7$

Or

What are the monomers of protein? Write about the different levels of the organization of protein. $1+6=7$

4. What are the fat-soluble vitamins? Write on the sources and functions of different fat-soluble vitamins. $1+6=7$

Or

What are enzymes? Write about the different theories of the mechanism of enzyme action. $1+6=7$

5. What are the different types of RNA? Describe briefly about the functions of different types of RNA. $1+6=7$

Or

Write about the important features of the Watson and Crick's double helical DNA model.

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(Turn Over)

6. Explain the different steps of Krebs cycle.

Why is it called citric-acid cycle?

6+1=

Or

Briefly describe the process of Electron Transport System (ETS) and ATP synthesis.