

Bs/ZOO/C7

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(FYUGP)

(4th Semester)

ZOOLOGY

(MAJOR)

Paper : ZOO/C7

(Fundamentals of Biochemistry)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

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

1. Write an account on carbohydrates classification. Explain, in detail, the structure of polysaccharides with suitable examples. 5+10=15

Or

What is glycolysis? Describe the steps involved in the process of glycolysis with a suitable flowchart. 15

(2)

2. Explain the structure and properties of triacylglycerols and discuss their biological significance. 15

Or

Write an account on the structure, properties and biological significance of steroids. 15

3. What are essential and non-essential amino acids? Discuss their biological significance. 2+13=15

Or

Discuss the various bonds responsible for stabilizing the three-dimensional structure of proteins. 15

4. Write notes on the following : $7\frac{1}{2} \times 2 = 15$

- (a) Structures of purine and pyrimidine
- (b) Cot curves

Or

Write notes on the following : $7\frac{1}{2} \times 2 = 15$

- (a) Types of DNA
- (b) Complementarity of DNA

(3)

5. Explain the mechanism of enzyme action with the help of suitable diagrams. 15

Or

Derive the Michaelis-Menten equation and explain its significance in enzyme kinetics. 15

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