

V/ZOO (vii)

2014

(5th Semester)

ZOOLOGY

Paper : ZL-VII

(Biochemistry)

Full Marks : 55

Time : 2 hours

(PART : B—DESCRIPTIVE)

(Marks : 35)

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

Answer all questions

- 1. What do you mean by carbohydrates?
Describe different types of carbohydrates with
their significance.**

1+6=7

Or

**Give an account on differences in the
structures of glycine, alanine and tyrosine
amino acids.**

7

G15—350/151a

(Turn Over)

(2)

2. Discuss the functions of coenzymes in context with enzyme activity. 7

Or

Explain Michaelis-Menten equation for enzyme action.

3. What is gluconeogenesis? Describe various steps of gluconeogenesis. 1+6=7

Or

Describe the process of glycolysis in detail. 7

4. Give a detailed note on electron transport chain. 7

Or

Describe the hexose monophosphate shunt system.

5. Define the ornithine cycle and its importance. 5+2=7

Or

Give a detailed account on lipogenesis. 7

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(PART : A—OBJECTIVE)

(Marks : 20)

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SECTION—A

(Marks : 5)

Put a Tick (✓) mark against the correct answer in the
brackets provided : **1×5=5**

1. Maltose is a disaccharide which is made up of

- (a) glucose and fructose ()**
- (b) glucose and glucose ()**
- (c) glucose and galactose ()**
- (d) None of the above ()**

2. Enzymes are made up of

- (a) proteins ()
- (b) RNA ()
- (c) Both (a) and (b) ()
- (d) None of the above ()

3. In animals, glucose can be stored in the form of

- (a) glycogen ()
- (b) proteins ()
- (c) starch ()
- (d) lipids ()

4. In the Eukaryotes, citric acid cycle occurs in

- (a) Mitochondria ()
- (b) Cytoplasm ()
- (c) Golgi body ()
- (d) Nucleus ()

5. Which of the following enzymes is involved in the conversion of glucose to glucose-6-phosphate?

(a) Hexokinase ()

(b) Pyruvate kinase ()

(c) Succinate dehydrogenase ()

(d) Arginase ()

(4)

SECTION—B

(Marks : 15)

Write short notes on the following in 5 to 8 sentences each :

3×5=15

1. Phospholipids

(5)

2. Allosteric inhibition

(6)

3. Pyruvate kinase

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4. Oxidative decarboxylation