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Total No. of Printed Pages: [01]

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B.Sc. Optometry (Semester – 1st)

BASICS OF BIOCHEMISTRY

Subject Code: BOPTS1104

Paper ID: [20131804]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a. Name the emergency hormone. Why it is called as so.
- b. What is transamination? Give an example.
- c. Write is Glycogenolysis.
- d. Explain deamination reaction with an example.
- e. Name the disease/disorder caused by hypo and hyper secretions of Thyroxin hormone.
- f. What is the effect of pH on enzyme catalysis?
- g. What is the difference between primary and secondary structure of proteins? What forces stabilize these structures?
- h. Name any two disaccharides.
- i. What are fatty acids? Name or write formula of any two fatty acids.
- j. Name the reserve food material of plants and humans.

Section – B

(5 marks each)

- Q2. a) Write the characteristics of enzyme catalysis.
b) What is Michaelis – Menton constant? Mention its significance.
- Q3. Write the reactions of TCA cycle which involves oxidative decarboxylation.
- Q4. What are steroid hormones? Name any two. Also describe the role played by them in human body.
- Q5. What are Lipids? How are they classified?
- Q6. Draw the alpha helical and beta pleated structure of protein? How are they different from each other?

Section – C

(10 marks each)

- Q7. Explain glycolysis in detail with diagram.
- Q8. a) Give structural difference of Hemoglobin and Myoglobin. (06)
b) Explain Bohr's effect of oxygen transportation through blood. (04)
- Q9. Name the various hormones produced by the following glands
a) Adrenal gland b) Pituitary gland c) Testis
Also write the physiological action of all these hormones.