

**PC-506**  
**(554) M.Sc. ZOOLOGY (FOURTH SEMESTER)**  
**Examination JUNE 2020**  
Compulsory/Optional  
Group - compulsory  
Paper - II

**BIOCHEMISTRY AND METABOLIC REGULATION AND FUNCTION**

Time:- Three Hours ]

Maximum Marks : 80

Minimum Passing Marks: 29

नोट : दोनों खण्डों से निर्देशानुसार उत्तर दीजिए। प्रश्नों के अंक उनके दाहिनी ओर अंकित हैं।

Note: Answer From Both the Section as Directed. The Figures in the right-hand margin indicate marks.

**Section -A**

1. Answer the following questions: -

**1X10 = 10**

- (a) Which of the following enzyme is not involved in galactose metabolism?
- (b) Write the name of most active organs in the animal body which has the ability to synthesize treacly glycerol?
- (c) Minerals are absorbed in which form?
- (d) What is peptide bond?
- (e) Which amino acids is considered as both ketogenic and glycogenic?
- (f) Semi conservative DNA replication was first demonstrated in \_\_\_\_\_?
- (g) Name the disease caused by the deficiency of Niacin?
- (h) Where does oxidative phosphorylation take place?
- (i) Name the coenzyme of riboflavin (B<sub>2</sub>) ?
- (j) Fructose and glucose can be distinguished by \_\_\_\_\_?

2. Answer the following questions:-

**2x5 = 10**

- (a) What is the role of carbohydrate in metabolism?
- (b) What are the two types of nutrition (with examples)?
- (c) How are proteins broken down?
- (d) What is the structure and function of wailed acid
- (e) How many ATP Ps produced in oxidative phosphorylation.

**Section -B**

Answer the following questions.

**12x5 = 60**

3. Describe about metabolism of lipid.

**Or**

Describe the general structure, classification, and formation of monosaccharide.

4. Explain the Biological function and metabolism of protein.

**Or**

Describe the structure and biosynthesis of amino acid.

5. Describe the malefic acid with biological parportance.

**Or**

Explain Vitamin.

6. Describe the classification, properties and mechanism of enzyme.

**Or**

Write short notes:

- (a) Oxidative phosphorylation
- (b) Utilization of krebcycle.