S-181

Total Pages: 3 Roll No.

MSCZO-504

Bio-Chemistry

M.Sc. Zoology (MSCZO)

1st Semester Examination, 2022 (Dec.)

Time: 2 Hours] Max. Marks: 70

Note: This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A (Long Answer Type Questions)

Note: Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 19 = 38)$

1. Define lipids. Write an account of classification of lipids with suitable examples.

- **2.** Describe in detail the process of glycolysis.
- **3.** What are main buffers in the body? Explain their mechanism of work in detail.
- **4.** Write an account of various factors affecting enzyme activity.
- **5.** Define and elaborate :

(6+6+7=19)

- (a) Anion and Cation.
- (b) Oxidation and Reduction.
- (c) Reducing agents and oxidizing agents.

SECTION-B

(Short Answer Type Questions)

Note: Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

- 1. What are coenzymes? Write about their significance and chemical structures.
- **2.** Describe the chemistry, sources, daily requirement and deficiency manifestations of vitamin-A.

- **3.** Write notes on :
 - (a) Porphyrins.
 - (b) Transmethylation.
- **4.** Describe mechanism of enzyme action.
- **5.** Explain electron transport chain (ETC) and write its significance.
- **6.** Give detailed account of degradation of cholesterol.
- 7. Describe β -oxidation of fatty acids.
- **8.** Write notes on:
 - (a) Bile pigments.
 - (b) Transamination.