

X-1015

M.Sc. IV Semester(Ex) Examination 2020

Subject : Chemistry

Paper : III – Bio-Chemistry

Max.Marks : 85

Min.Marks: 29

Note: All questions are compulsory.

Section –‘A’

(Short Answer Type Questions)

1. Attempts any five questions.

5x5=25

- (i) Explain the biological importance of Fe and CO.
- (ii) Explain the structure of Haemocyanins.
- (iii) What are Cytochromes?
- (iv) What are biological nitrogen fixation?
- (v) Explain chemical and biological catalysis?
- (vi) Give the Line weaver Burk equation.
- (vii) What is the significance of vitamin in our diet?
- (viii) Explain the micelles synthesis enzyme or synzymes.
- (ix) What is meant by biological cell?
- (x) Explain synthesis of ATP from ADP.

Section –‘B’

(Long Answer Type Questions)

12x5=60

Unit – I

2. What is bio-energy? Explain the energy cycle in the cell.

Or

What is the role of NADP in photo system I and II?

Contd...

(2)

Unit – II

3. What is electron transport in biological system?

Or

Explain how nitrogenase converts an atmospheric power?

Unit – III

4. (a) Explain the properties of enzymes like catalytic power.

(b) Describe Fisher's lock and key hypothesis.

Or

Describe acid-base catalysis, covalent catalysis and strain.

Unit – IV

5. (a) What is the significance of vitamins in diet?.

(b) Applications of immobilized enzymes in food and dairy industry.

Or

Explain clinical uses of enzymes and which enzyme is used to diagnose the following diseases and why-

Heart diseases (Myocardial infaction)

Or

Liver disease

Unit – V

6. Explain structure and functions of cell membrane and nerve conduction.

Or

Explain : (Any two of the following)

(i) Structure and functions of D.N.A.

(ii) Diffentiate between active transport and diffusion.

(iii) Structure and functions of Proteins.

(iv) Melix Coils transition.
