

(BC 1325)
B.Sc. (MBC) (CBCS) Examinations
NOVEMBER - 2018
EXAMINATION AT THE END OF I SEMESTER
PART - II BIO CHEMISTRY-1
BIO MOLECULES

TIME : Two and half hours

Maximum : 60 Marks

Part - A

Answer any FIVE of the following questions

5x 4M=20M

Each question carries FOUR marks

1. Water as a biological solvent.
2. Phosphate buffer system.
3. Any four chemical reactions of carbohydrates.
4. Biological importance of lactose.
5. Unsaturated Fatty acids
6. Fluid mosaic model.
7. Chemical reactions of Amino acids due to carbonyl and amino groups.
8. Glutathione.
9. Denaturation and Renaturation of proteins.
10. Structure of Hemoglobin.

Part - B

Answer ALL THE following questions

5x8M= 40M

Each question carries 8 marks.

11. Donnan membrane equilibrium. Significance.

OR

Significance of osmotic pressure in biological systems.

12. Classification of carbohydrates based on the number of carbons and functional group. Write its functions.

OR

Classify different types of polysaccharides with suitable examples and structures.

13. Discuss about the structures and classification of lipids.

OR

Explain in brief about the prostaglandins

14. Explain in detailed about the titration curve of glycine and pK values.

OR

Discuss about the classification of Amino Acids.

15. Classify the proteins based on their solubility properties.

OR

Explain about the different levels of structural organization of proteins.

(BC 1325)

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B.Sc. (MBC) (CBCS) Examinations

NOVEMBER / DECEMBER - 2019

EXAMINATION AT THE END OF SEMESTER - I

PART - II BIO CHEMISTRY-1

BIO MOLECULES

TIME : Two and half hours

Maximum : 60 Marks

PART-A

Answer any Five of the following questions

5x4=20 m

1. Donnan membrane equilibrium
2. Henderson-Hasselbalch equation
3. Bacterial cell wall polysaccharides
4. Biological structure and importance of lactose
5. Classification of lipids
6. Types and functions of lipoproteins
7. Peptide-bond nature and conformation
8. Titration curve of glycine
9. Denaturation and Renaturation of proteins
10. Forces stabilizing the structure of proteins

PART-B

Answer all the following questions

5x8=40 m

11. a). Explain the role of water as biological solvent.
(Or)
b). Describe the importance of buffer in biological systems.
12. a.) Explain the structure and properties of structural polysaccharides.
(Or)
b). Give an account on storage polysaccharides.
13. a). Write about the structure, properties of cholesterol.
(Or)
b). Describe structure and biological role of prostaglandins.
14. a). Write any four chemical reactions of amino acids.
(Or)
b). Explain titration curve of glycine and pk value.
15. a). Explain tertiary and quaternary structure of proteins with relevant examples.
(Or)
b). Give an account on classification of proteins based on solubility and function.

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PART - A

(BC N-1325)
B.Sc. (MBC) (CBCS) Examinations
APRIL - 2022
EXAMINATION AT THE END OF SEMESTER - I
PART - II BIO CHEMISTRY-1
BIO MOLECULES

TIME : Three hours

Maximum : 60 Marks

I Answer any FIVE of the following:

5X4=20M

PART-A

Each question carries FOUR marks

1. (BOD),(COD).
2. Blood group substances.
3. Structure and examples of any four monosaccharaides.
4. Fats & oils.
5. Simple lipids.
6. Biological role of prostaglandins
7. Essential and non essential amino acids
8. General properties of proteins.
9. DNA super coiling
10. Denaturation and Renaturation of DNA.

Part-B

II Answer ALL THE following questions.

5x8=40 M

Each question carries EIGHT marks

11 a, Explain the role of water as a biological solvent in living system.

OR

b, . Explain Soil analysis (texture, organic matter, elements)

12 a, Describe structure and function of polysaccharides

OR

b, Describe the structure of Structural polysaccharides

13 a, Explain the structure and functions of phospholipids and sphingo lipids

OR

b, Explain the structure and functions of compound lipids.

14 a, Write any five chemical reactions of amino acids

OR

b, Discuss about Structural organization of proteins.

15 a, Watson-Crick DNA double helix structure

OR

b, Discuss about different types of RNA'S.

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(BC 1325)
B.Sc. (MBC) (CBCS) Examinations
APRIL -2022 (Backlog)
EXAMINATION AT THE END OF SEMESTER - I
PART - II BIO CHEMISTRY-1
BIO MOLECULES

TIME : Three hours

Maximum : 60 Marks

PART - A

5 x 4m = 20 m

Answer any FIVE of the following questions

1. Role of water in biological processes.
2. Significance of osmosis in biological systems
3. Any two chemical reactions of carbohydrates
4. Ring structure of Glucose
5. Fluid Mosaic model
6. Biological role of prostaglandins.
7. Peptide bond – Nature & conformation
8. Glutathione
9. Denaturation & renaturation of proteins.
10. Classification of proteins based on function.

PART - B

5 x 8m = 40m

Answer the following questions

11. (a) Write about importance of buffers in biological systems and mention Henderson-Hasselbalch equation.

OR

(b) Describe Donnan membrane equilibrium & its significance.

12. (a) Explain structure & biological importance of any two storage polysaccharides.

OR

(b) Give an account on glycosaminoglycans.

13. (a) Give an account on phospholipids.

OR

(b) Describe the structure & importance of Cholesterol.

14. (a) Write any four chemical reactions of aminoacids.

OR

(b) Titration curve of Glycine & significance of pK value.

15. (a) Explain methods for determination of aminoacid composition of proteins.

OR

(b) Describe primary & secondary structural levels in proteins.

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