

Roll No.

Total No. of Questions : 11]

[Total No. of Printed Pages : 5

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M.Sc. Ist Semester (NEW/ATKT)

Examination, 2021-22

Chemistry

Paper - MCH-405 (b)

Biology for Chemistry

Time : 3 Hours]

[Maximum Marks : 85

Note :- Attempt all the questions.

SECTION - 'A'

Objective Type Questions

5×2=10

Note :- Objective Type 5 Question of 2 Marks each.

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(1)

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1. Choose the correct answer :

(i) Which is not a prokaryotic cell

(a) Bacteria

(b) EColi

(c) Algae

(d) Archaea

(ii) Which of the following is a monosaccharide.

(a) Glycogen

(b) Cellulose

(c) Starch

(d) Fructose

(iii) Which one of the following is true about lipids.

(a) They are mostly made up of nitrogen

(b) They are inorganic

(c) They do not dissolve in water

(d) All of the above

(iv) The first step of amino acid degradation is the removal of amino group by?

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(2)

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- (a) Oxidative deamination
- (b) Reductive amination
- (c) Dehydrogenation
- (d) Ammonolysis
- (v) Which of the following is not a pyrimidine base
 - (a) Cytosine
 - (b) Thiamine
 - (c) Guanine
 - (d) Uracil

SECTION - 'B'

Short Answer Type Questions 5×5=25

Note :- Short answer type 5 questions of 5 marks each.

2. What are Bio-molecules

OR

Differentiate between plant and animal cells.

3. Write a note on Confirmation of monosaccharides.

OR

Write a short note on glycolipids.

4. Write a note on lipid metabolism.

OR

What are prostaglandins ?

5. Describe amino acid sequencing.

OR

Write a short note on Oxytocin.

6. Write a note on replication of DNA

OR

Write a note on transcription.

SECTION - 'C'

Long Answer Type Questions 10×5=50

Note :- Long answer type questions of 10 marks each with internal choice.

7. Write a details account of the biological energy currency ATP.

OR

What is catabolism and anabolism. Explain in detail.

8. Describe in detail the storage polysaccharide.

OR

Explain how the presence of six OH groups affects the solubility and properties of glucose.

9. Explain the fluid mosaic model of membrane structure.

OR

Describe in detail about the composition and function of lipoproteins

10. Describe the protein structure in detail.

OR

Describe in detail the amino acid metabolism.

11. Write the difference between DNA and RNA.

OR

Explain the double helical model of DNA
