



OECH211

Reg. No.

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II Semester B.A./B.Com./B.B.A./B.Sc. Degree Examination, July/August - 2024

CHEMISTRY

Molecules of Life

(NEP CBCS Scheme)

Paper : II (Open Elective)



Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

- 1) Question paper has three parts , Answer all the parts.
- 2) Write chemical equation and diagrams wherever necessary.

PART - A

Answer any Five of the following questions. Each question carries 2 marks.(5×2=10)

1. What are epimers? Give an example.
2. Name the monosaccharides present in lactose.
3. What are Glycolipids?
4. What are enzymes?
5. Define the term catabolism.
6. Name the Nitrogenous base present only in DNA.

PART - B

Answer any Four of the following questions. Each question carries 5 marks.

(4×5=20)

7.
 - a) Any three general properties of fructose.
 - b) Carbohydrates as a source of energy. Explain. **(3+2)**
8.
 - a) How are proteins classified? Give an example for each.
 - b) Mention the components of starch. **(3+2)**
9.
 - a) Write the biological importance of triglycerides.
 - b) What is a peptide bond? **(3+2)**

[P.T.O.]



10. What is structure activity relationship? Give the role of the amino group in drug action. Receptor theory. (5)
11. Give the salient features of watson crick modes of DNA. (5)
12. a) List the general features of the genetic code.
b) What is translation? (3+2)

PART - C

Answer any Three of the following questions. Each question carries 10 marks.

(3×10=30)

13. a) What are reducing and non reducing sugar? Give an example.
b) Give the classification of carbohydrates with an example.
c) Write a note on the tertiary structure of a protein. (4+3+3)
14. a) Discuss the effect of following on the activity of enzyme
i) Concentration
ii) Temperature.
b) Mention the biological importance of cholesterol.
c) Give one example for each group, absolute and stereospecificity of enzymes. (4+3+3)
15. a) Mention the differences between nucleosides and nucleotides.
b) What are essential and non-essential amino acids? Give an example for each.
c) What si the role of ATP? (3+4+3)
16. a) What is competitive and noncompetitive inhibition? Give an example.
b) Give the importance of
i) Haemoglobin
ii) Collagen.
c) Explain the denaturation of proteins. (4+4+2)
17. a) What are exergonic and endergonic reaction?
b) Explain lock and key model of enzyme specificity.
c) Give the importance of Kreb's cycle. (4+3+3)
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