

SEM	SET	PAPER CODE	TITLE OF THE PAPER
IV	2013	11UCH430404B	BIOCHEMISTRY – II

SECTION – A**Answer all the questions:****20 x 1 = 20****Choose the correct answer:**

- _____ is the pH at which a particular molecule carries no net electrical charge.
 - Enthalpy
 - Entropy
 - Free energy
 - Isoelectric point
- A chemical bond formed between two molecules when the carboxyl group of one molecule reacts with the amino group of the other molecule, releasing a molecule of water is
 - peptide bond
 - covalent bond
 - hydrogen bond
 - electrostatic bond
- _____ is a peptide hormone produced by beta cells in the pancreas.
 - Insulin
 - Glycogen
 - Myoglobin
 - Hemoglobin
- It is the main structural protein of the various connective tissues in animals
 - peptide
 - myoglobin
 - collagen
 - hemoglobin

Answer in one or two sentences:

16. What are amino acids?
17. Name any two structural proteins.
18. Name any two coenzymes.
19. What do you mean by denaturation?
20. What are alkaloids?

SECTION – B

Answer all the questions:

5 x 4 = 20

21. a. Differentiate standard and non-standard amino acids.

OR

- b. What do you understand by Isoelectric point?
22. a. Classify proteins based on solubility.

OR

- b. Explain the secondary structure of proteins.
23. a. Compare and contrast Apoenzyme, coenzyme and cofactor.

OR

- b. Distinguish V_{\max} from K_m .
24. a. What is the difference between nucleoside and nucleotide?

OR

- b. Give the biological role of Nucleic acids.
25. a. List out the properties of alkaloids.

OR

- b. Explain the structure of chlorophyll molecule.

SECTION – C

Answer any FOUR questions:

4 x 15 = 60

26. Explain the chemical structure and properties of amino acids.
27. Describe the chemical structure and properties of insulin.
28. Discuss the mechanism of enzyme action.
29. Bring out the structure, chemistry and functions of DNA.
30. Write an essay on the structure and properties of carotenoids.
