

Reg. No .....

Name .....

19P4006

**MSc DEGREE END SEMESTER EXAMINATION - MARCH/APRIL 2019**

**SEMESTER 4 : PHARMACEUTICAL CHEMISTRY**

**COURSE : 16P4CPHT13EL : PHARMACEUTICAL CHEMISTRY - II**

*(For Regular - 2017 Admission and Supplementary - 2016 Admission)*

Time : Three Hours

Max. Marks: 75

**Section A**

**Answer any 10 (2 marks each)**

1. Discuss the relevance of glucose in pharmaceutical chemistry.
2. Explain the role of proteins in the structure of cell membrane.
3. Explain ion exchange chromatography as a tool for aminoacid analysis.
4. What is Edman method of peptide sequencing? Explain with an example.
5. Give two clinical uses of enzymes?
6. What are perfect enzymes?
7. Draw the structure of androsterone.
8. What is DNA finger printing. Illustrate the use of DNA fingerprinting in forensic science
9. Give the classification of prostglandins.
10. What is the biological role of oxaloacetate?
11. What are isotonic solutions ? Differentiate hypertonic and hypotonic solutions.
12. Differentiate osmolarity and osmolality.
13. Which are the different morphological structures of bacteria?

**(2 x 10 = 20)**

**Section B**

**Answer any 5 (5 marks each)**

14. Explain C-terminal amino acid analysis. Give the different methods used for this
15. What is solid phase peptide synthesis? What are the merits of this method over solution phase synthesis?
16. Explain the use of enzymes as targets for drug design.
17. Describe recombinant DNA technology. Explain genomic library
18. Write short note on pancreatic hormones?
19. Classify three types of RNA's and its biological functions.
20. What is the significance of lipid metabolism? How is dihydroxy acetone phosphate synthesized from glycerol?
21. Explain the role of pyridoxal phosphate (PLP) on transamination reactions.

**(5 x 5 = 25)**

**Section C**

**Answer any 2 (15 marks each)**

22. Explain the action and mechanism of
  - a) Lysozymes
  - b) Carboxypeptidase
23. Explain the biosynthesis of proteins. Describe the role of RNA and DNA in the process.
24. Outline the classification, structure, biosynthesis and biological role of prostaglandins.
25. Explain in detail about a) Classification of Microbes, b) Isolation and characterisation of microbes (7 + 8)

**(15 x 2 = 30)**