

Reg. No

Name

18P406

MSc DEGREE END SEMESTER EXAMINATION - MARCH 2018
SEMESTER 4 : PHARMACEUTICAL CHEMISTRY
COURSE : 16P4CPHT13EL ; PHARMACEUTICAL CHEMISTRY - II
(For Regular - 2016 admission)

Time : Three Hours

Max. Marks: 75

Section A
Answer any 10 (2 marks each)

1. What are the important constituents of cell membrane?
2. Discuss the relevance of glucose in pharmaceutical chemistry.
3. Explain the role of proteins in the structure of cell membrane.
4. How is hydrazinolysis used in peptide sequencing?
5. Explain ion exchange chromatography as a tool for amino acid analysis.
6. How will you calculate V_{max} from the enzyme kinetics plot?
7. What do you mean by denaturation of DNA ?
8. Describe type I diabetes?
9. What are the functions of essential fatty acids?
10. Define buffer capacity.
11. What are isotonic solutions ? Differentiate hypertonic and hypotonic solutions.
12. Name and explain different types of acid-base balance disturbances in human body.
13. What is the difference between mixed culture and pure culture?

(2 x 10 = 20)

Section B
Answer any 5 (5 marks each)

14. Discuss N-T-AA analysis. Explain any two methods.
15. What is solid phase peptide synthesis? What are the merits of this method?
16. What are enzyme immunological assays? Explain ELISA test.
17. What is allosteric inhibition? Explain the mechanism citing suitable examples.
18. Give an idea about the general functions of hormones.
19. Explain procedure of DNA replication and the involvement of DNA polymerase
20. What is fatty acid oxidation? Explain the steps?
21. Describe the biogenesis of prostaglandins?

(5 x 5 = 25)

Section C
Answer any 2 (15 marks each)

22. Explain the action and mechanism of
 - a) Lysozymes
 - b) Carboxypeptidase

24. Give the significance of amino acid metabolism? Explain ornithine cycle? How is it connected to citric acid cycle?
25. Explain in detail about a) Microbial growth, b) Fermentation technology (6 + 9)

(15 x 2 = 30)