Reg. No ..... Name .....

MSc DEGREE END SEMESTER EXAMINATION - MARCH 2020

SEMESTER 4 : PHARMACEUTICAL CHEMISTRY

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

(For Regular - 2018 Admission and Supplementary - 2017, 2016 Admissions)

Time : Three Hours Max. Marks: 75

Section A

Answer any 10 (2 marks each)

1. Discuss the relevance of sucrose in pharmaceutical chemistry.
2. Explain the structure of cell membrane.
3. What are the advantages of Solid Phase Peptide Synthesis (SPPS) over Solution Phase Synthesis (SPS)? Give an example for a solid support used in SPPS.
4. Explain the role of Boc and DCC in the Merrifield peptide synthesis.
5. Briefly explain recombinant technology in enzyme synthesis?
6. Explain the role of aspirin as an inhibitor for PGH_2 synthase?
7. What are the functions of adreno cortico trophic hormones?
8. What is restriction enzyme? What is its biological significance?
9. Explain the role of Coenzyme A on biosynthesis of fatty acids.
10. Give the net reaction of citric acid cycle.
11. Define buffer capacity.
12. Write Henderson-Hasselbalch equation. Write its importance
13. What do you mean by staining of bacteria?

(2 x 10 = 20)

Section B

Answer any 5 (5 marks each)

14. Explain the different chromatographic technics used in the aminoacid analysis.
15. Explain Ramachandran plot.
16. Write a note on classification of enzymes?Explain the mechanism of action?
17. What is allosteric inhibition? Explain the mechanism citing suitable examples.
18. Give the structure and functions of adrenal cortical hormones.
19. What are the functions of neurohypophysis?
20. Describe the biogenesis of prostaglandins.
21. Discuss fructose metabolism.

(5 x 5 = 25)

Section C
Answer any 2 (15 marks each)

22. Discuss clinical use of enzymes and enzyme immobilization? Explain enzyme linked immunosorbent assay?
23. Outline the synthesis of purine and pyrimidine nucleotides
24. Explain Hexose Monophosphate (HMP) Shunt.
25. Explain in detail about a) Different stages involved in the bacterial growth, b) Different processes involved in the control of microbial growth (7 + 8)

(15 x 2 = 30)