

Reg. No

Name

18P431

M Sc DEGREE END SEMESTER EXAMINATION - MARCH 2018
SEMESTER 4 : PHARMACEUTICAL CHEMISTRY
COURSE : 16P4CPHT15EL ; PHARMACEUTICAL CHEMISTRY - IV
(For Regular - 2016 admission)

Time : Three Hours

Max. Marks: 75

Section A
Answer any 10 (2 marks each)

1. Give a note on accidental drug discovery.
2. Give a short note on lead identification via side-effect exploitation.
3. In what way the partition coefficient P is superior to substituent hydrophobicity constant π in QSAR studies?
4. Explain with a suitable example, how the chemical modifications altering the log P values can be effectively utilised to remove central nervous system side effects.
5. What are the various stages of computer aided drug design?
6. What is the application of molecular modelling in drug discovery?
7. What is Tentagel? Give it's use.
8. What are photolabile anchors? Give it's significance.
9. How alkylating agents act as an antineoplastic agent?
10. Comment on the role of hormones as anticancer agents.
11. Give the functions of sympathetic nervous system
12. What are benzodiazepins? Give any one example with structure.
13. Explain the pharmacological importance of dopa decarboxylase inhibitors. Give an example.

(2 x 10 = 20)

Section B
Answer any 5 (5 marks each)

14. Illustrate various applications of prodrugs with suitable examples.
15. What are bioisosters? How are they classified? Illustrate with suitable examples.
16. What do you mean by Taft's steric factor? Explain the parameters.
17. What are 3-D QSAR techniques? Explain any two of them in detail.
18. Give an account on different kinds of solid supports used in solid phase synthesis.
19. Give an account on high throughput screening of libraries.
20. Discuss about muscarinic receptors
21. Outline the biosynthesis of acetylcholine and explain the interaction acetylcholine with cholinergic receptors.

(5 x 5 = 25)

Section C
Answer any 2 (15 marks each)

22. What is the mechanism of docking?

23. Explain the role of antimetabolites and antagonists as antineoplastic agents.
24. Give an account of adrenergic and cholinergic receptors
25. Write a note on analeptics. Explain their structure, classification and properties.

(15 x 2 = 30)