



# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

## B.Sc. DEGREE EXAMINATION – CHEMISTRY

FIFTH SEMESTER – APRIL 2019

### 16UCH5ES02– MEDICINAL AND PHARMACEUTICAL CHEMISTRY

Date: 24-04-2019  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

#### Part-A

Answer ALL questions.

(10 × 2= 20)

1. Define therapeutic index.
2. What is Pharmacopoeia?
3. Draw the structure of tubacurarine.
4. What is arteriosclerosis?
5. Mention the uses of reserpine.
6. Write the physiochemical parameters of drugs.
7. Write the differences between prodrugs and soft drugs.
8. What are the advantages of polystyrene support in combinatorial synthesis?
9. Define minimal steric difference.
10. Name the electronic parameters used in QSAR and drug design.

#### Part-B

Answer any EIGHT questions.

(8 × 5= 40)

11. List out the differences between antiseptics and disinfectants.
12. What is meant by Blood pressure? Explain its type.
13. Write note on biological and chemical assays.
14. How do salicylic acid and paraaminophenol derivatives act as good antipyretic analgesics?
15. Discuss short acting barbiturates with two examples.
16. Draw the structure of penicillin and explain its uses.
17. Explain the structure drug action and use of Rifampicin.
18. Discuss the structure activity relationship of chloramphenicol.
19. Write about the concepts of ring closure and ring opening in drug modification.
20. Describe the discovery of lead compounds.
21. Explain the role of blood brain barrier in drug delivery.
22. Distinguish between conventional synthesis and combinatorial synthesis.

#### Part-C

Answer any FOUR questions.

(4 × 10= 40)

- 23.a. What are the differences between sedatives and hypnotics?
- b. Write a note on storage of drugs in different temperature conditions. (4+6)
- 24a. Give an account on proprietary and non-proprietary names.
- b. What is anemia? Discuss the various types of anemia? (4+6)
- 25a. Write a note on chemotherapy.
- b. What are  $\beta$ -blockers? Explain the action of propranolol hydrochloride. (5+5)
26. Discuss the structure, mechanism of action and therapeutic uses of gymnamic acid.
27. Draw linear and parabolic Hansch Plots and validate the Hansch approach based on its merits and demerits.
- 28a. Write about drug latentiation.
- b. Explain Free Wilson Analysis. (5+5)

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