LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **CHEMISTRY**

FIFTH SEMESTER – **APRIL 2023**

16/17/186UCH5ES02 – MEDICINAL AND PHARMACEUTICAL CHEMISTRY

Date: 11-05-2023   Dept. No.   Max. : 100 Marks
Time: 01:00 PM - 04:00 PM

PART A

Answer *ALL* questions.   **(10 x 2 = 20)**

1. What do you mean by arteriosclerosis?
2. What is coagulation of blood?
3. Define the term pharmacokinetics.
4. What is anemia? Mention its types.
5. What is therapeutic index?
6. Write the physiochemical parameters of drugs.
7. Write the characteristics of soft drugs.
8. What are the advantages of polystyrene support in combinatorial synthesis?
9. Define pharmacophore.
10. Name the electronic parameters used in QSAR and drug design.

PART B

Answer any *EIGHT* questions.   **(8 x 5 = 40)**

11. Discuss briefly the components of blood.
12. Distinguish antiseptics and disinfectants.
13. Describe the chemical, biological and immunological assay.
14. Write a note on name of drugs and code number.
15. Write a note on nitrates and β-blockers.
16. Explain briefly antipyretic and analgesic drugs.
17. Explain the structure drug action and use of erythromycin.
18. Describe 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 combinational synthesis.

PART C

Answer any *FOUR* questions.   **(4 x 10 = 40)**

23a. How is sugar determined in the sample of urine by Benedict's method?
  b. What is meant by blood pressure? How are they classified?   [5 + 5]
24a. Discuss the physiological effects of hydroxyl and carboxylic acid functional groups.
  b. Briefly explain the metabolism of drug.   [5 + 5]
25a. Write a short note on chemotherapy.   .
  b. What are narcotic analgesics? Write down the uses and structure of morphine.   [5 + 5]
26. Discuss the structure, mechanism of action and therapeutic uses of penicillin.
27. Draw linear and parabolic Hansch Plots and validate the Hansch approach based on its merits and demerits.
28a. Write about rational drug discovery models.
  b. Explain the features and uses of molecular modelling.   [5 + 5]

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