



K23U 2592

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/  
Improvement) Examination, November 2023  
(2020 – 2021 Admissions)

CORE COURSE IN LIFE SCIENCES (ZOOLOGY) AND COMPUTATIONAL  
BIOLOGY

5B09 ZCB : Chemoinformatics and Computational Medicinal Chemistry

Time : 3 Hours

Max. Marks : 40

PART – A

Write about **each** of the following in **2 or 3** sentences. **Each** question carries  
**1** mark. **(6×1=6)**

1. How does chemoinformatics contribute to drug discovery ?
2. What is chemical indexing ?
3. Define medicinal chemistry.
4. What is receptor ?
5. What do you mean by drug potency ?
6. What is drug-likeness ?

PART – B

Explain **any 6** of the following. **Each** question carries **2** marks. **(6×2=12)**

7. What is the need and scope of chemoinformatics databases in scientific research ?
8. What is similarity searching in chemoinformatics ?
9. What is the difference between pro drug and soft drug ?
10. Write any two principles of drug action.

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11. What is the significance of SAR in drug design ?
12. What do you mean by Combinatorial Chemistry ?
13. Discuss the major source of small molecules in marine source.
14. What do you mean by proximity searching ?

PART – C

Write a short essay on **any 4** of the following. **Each** question carries **3** marks. **(4×3=12)**

15. How does chemoinformatics contribute to drug discovery ?
16. How are pharmacophores identified and utilized in drug discovery ?
17. What are the major pathways involved in drug metabolism ?
18. Explain the steric and electronic parameters of a lead compound.
19. Describe the different classification of drugs.
20. How drug-likeness and compound filters used in drug discovery ?

PART – D

Write an essay on **any 2** of the following. **Each** question carries **5** marks. **(2×5=10)**

21. Discuss the combinatorial library design strategies.
  22. Discuss the application of computational biology with case studies.
  23. Describe the basic principles involved in the QSAR approach to drug design.
  24. Explain the process of Drug distribution and Drug metabolism.
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