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Centre for Computational Biology and Bioinformatics
CENTRAL UNIVERSITY OF HIMACHAL PRADESH
(Established under Central Universities Act 2009, Accredited with NAAC A⁺)
Shahpur, District: Kangra, Himachal Pradesh-176206

MID-TERM EXAMINATIONS, APRIL-2024 (SPRING SESSION)

M.Sc. BIOINFORMATICS

20 Marks)

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on of this

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Name of the Course: Computer Aided Drug Discovery

Credit: 2

Time Duration: 1 Hour

Date of Exam: 15-4-2024

Course Code: BIN465

Semester: II

Maximum Marks: 20

Roll No:

SECTION-A

Q1). ANSWER ALL THE FOLLOWING QUESTIONS

5 X 1 = 5 M

- Factors affecting **Van der Waals** forces are?
- In electronic substituent **X** represents _____
a) 70 b) 75 c) 76 d) 72
- The biological activity is normally expressed as $1/C$, where **C** is _____
- What is the **logP** value of **Benzene**?
a) 2.13 b) 2.31 c) 1.23 d) 3.21
- $P = \text{Concentration of drug in octanol} / \text{Concentration of drug in aqueous solution}$ is
True (or) False?

SECTION-B

ANSWER ANY TWO OF THE FOLLOWING QUESTIONS

2 X 2.5 = 5 M

- Write a short note on applications of Computer Aided Drug Discovery.
- Write a short note on the History of Computer Aided Drug Discovery.
- Write a short note on Hydrophobicity and partition co-efficient.
- Write a short note on electronic effects.

SECTION-C

ANSWER ANY TWO OF THE FOLLOWING QUESTIONS

2 X 5 = 10 M

- Discuss the ADMET properties.
- Discuss Steric and Taft's steric factors.
- Explain the Hansch Analysis
- Explain non-bonded interactions in detail.