

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2022

B.Tech-VI Semester (BT)

COURSE CODE: 18B11BI612

MAX. MARKS: 15

COURSE NAME: Computer Aided Drug Design

COURSE CREDITS: 3

MAX. TIME: 1 Hour

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1.If you have an unknown target structure and known ligands, which approach will be most suitable for drug design? **(1 Mark)**

Q2. Drug discovery process allows IND and NDA applications for potential molecules. What are the essential criteria to IND and NDA approvals?**(1 Mark)**

Q3. Several viral proteins get imported into the host cell after HIV infection. Which protein is necessary for maturation of newvirion? How does it work? **(1 Mark)**

Q4. What is the effect of antiretroviral drugs on CD4+ cells? **(1 Mark)**

Q5. Evidence shows that the HIV virus is spread through the exchange of various bodily fluids.Can HIV spread through saliva transfer?**(1 Mark)**

Q6. A rational drug design approach is a step-wise process. Explain the initial stage and role of various biomolecules in a drug design strategy.**(2 Marks)**

Q7. Rational drug design is advantageous than conventional high throughput screening approaches. Justify the statement.**(2 Marks)**

Q8. Reliability of a drug design project increases with structural knowledge. Briefly discuss the various structural factors in drug design.**(3 Marks)**

Q9. Consider a pathogen with a surface receptor protein. What would be the possible events involved in infecting the host cell? **(3 Marks)**