

2/17

1205E224

Candidate's Seat No : _____

MSc Sem.-3 Examination

503

CB (Cancer Drug Disc & its Appl in Cancer Res)

May 2022

Time : 2-00 Hours]

[Max. Marks : 50

Instructions:

All Questions in Section I carry equal marks
Attempt any THREE questions in Section I
Question IX in Section II is COMPULSORY
Illustrate your answers with neat and labeled diagram wherever necessary

Section I

- | | | | |
|--------|---|---|---|
| Q-I | A | Describe protein prediction methods. | 7 |
| | B | Explain High throughput Screening. | 7 |
| Q-II | A | Write a note on bioinformatics and its application. | 7 |
| | B | Define rational drug discovery and explain structure based drug discovery. | 7 |
| Q-III | A | Describe any three sequence formats. | 7 |
| | B | Explain characteristics of drug and describe Lipinski rules of five. | 7 |
| Q-IV | A | Explain Ramachandran Plot. | 7 |
| | B | Describe Molecular fingerprinting and Pharmacophore modeling. | 7 |
| Q-V | A | Describe the role of high throughput techniques in drug target identification with reference to microarray | 7 |
| | B | Define drug metabolism and its phases. Explain conjugation reactions in detail. | 7 |
| Q-VI | A | What is the importance of animal models in drug discovery? Describe various types of animal models in detail. | 7 |
| | B | Describe targeted therapy and its types with examples. | 7 |
| Q-VII | A | State the principles of guidelines used to protect rights, safety and wellbeing of trial subjects. | 7 |
| | B | What is the use of high-throughput gene expression technology? Describe gene expression analysis using RNA sequencing technology. | 7 |
| Q-VIII | A | What is clinical trial? Explain different phases, types and plans of | 7 |

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clinical trials.

B Describe various applications of single nucleotide polymorphisms in pharmacogenomics. 7

Section II

Q-IX Multiple Choice Questions 8

A Sequin is _____ tool.

- a Sequence submission
- b Sequence retrieval
- c Sequence accuracy check
- d Sequence prediction

B _____ is a validation method for phylogenetic trees.

- a Ab-initio
- b Jackknife
- c Parsimony
- d Homology modelling

C _____ is not a protein prediction method.

- a UPGMA
- b Threading
- c Homology modelling
- d Ab-initio

D Enteral drug administration is performed via_____.

- a Injection
- b Topical
- c Oral
- d Respiratory

E Preclinical phase, just before phase I of clinical trials involves _____.

- a Testing on healthy subjects
- b In-vivo and in-vitro studies
- c Computer screening
- d Bioinformatics study

F For conducting clinical trial in India, registration of clinical trial is mandatory on _____ website.

- a www.icmr.nic.in
- b www.ctri.in
- c www.iec.in
- d www.NACSCRT.in

G In some clinical trial studies, Phase _____ is specifically designed to assess dosing requirements, whereas Phase _____ is specifically designed to study efficacy

- a IIA, IIB
- b 0, I
- c I, III
- d 0, IV

H _____ polymorphic allele is associated with hypersensitivity reactions to abacavir drug.

- a HLA-B*5701
- b HLA-A* 3101
- c HLA-B*1502
- d HLA-A*1502

