SUBJECT CODE: 15BI/PE/PG24

M. Sc. DEGREE EXAMINATION, APRIL 2016
BIOINFORMATICS
SECOND SEMESTER

COURSE: ELECTIVE
PAPER: PHARMACOGENOMICS
TIME: 3 HOURS   **MAX.MARKS: 100**

SECTION – A

ANSWER ALL QUESTIONS   **(20X1=20 MARKS)**

1**.** Comment on drug.

2. Pharmacogenomics

3. Personalized medicine

4. Therapeutic target

5. SNP

6. Repetitive elements

7. OMIM stands for _____

8. Mention few diseases associated with SNP's.

9. Toxicogenomics

10. Mention any two databases to find gene variants.

11. Comment on ADME.

12. Clinical trials

13. GEO database

14. Lipinski rule of five

15. Comment on antagonistic drug.

16. Mention any two types of microarray.

17. Visualizing Microarray data

18. What do you mean by Pharmacodynamics?

19. Mention any two software's used in microarray analysis?

20. Comment on lead identification in drug discovery.

SECTION – B

ANSWER ANY <u>FOUR</u> QUESTIONS.   **(4X10=40 MARKS)**

21. What are the different types of genetic variants?

22. Briefly explain the Pharmacogenomics Knowledge database and its applications.

23. Discuss the importance of toxicogenomics and mention any one of its database.

24. Explain about the process in structural genomics.

25. Write notes on the various aspects of Pharmacokinetics.

26. Explain the drug response in patients.

27. Enumerate the applications of Microarray.

SECTION – C

ANSWER ANY <u>TWO</u> QUESTIONS   **(2X20=40 MARKS)**

28. Describe in detail on the ADME properties of a drug and its significance in drug discovery.

29. Discuss the steps involved in the drug designing process with a neat diagram.

30. Describe in detail the basic steps in designing a microarray experiment and explain its types.

31. Explain the role of pharmacogenomics in personalized medicine.

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