Your Roll No.....

P.G. Diploma in Chemoinformatics
Annual Examination – 2010
Paper No.: PGDC – 101
Basics of Chemoinformatics

Time: 2 ½ Hours **Maximum Marks: 70**

Note: Paper has three sections. Answer ***ALL*** questions from Section A, any ***SIX*** questions from Section B and any ***THREE*** questions from Section C.

Section A (1x10 = 10)

Answer all questions

1. Drug latentiation means----------
2. Give one difference between efficacy and affinity
3. Chemoinformatics is combination of chemical synthesis, biological screening and ---------
4. Define the term data base.
5. MINDO stands for ----------
6. Free Wilson Analysis is a ---------- technique using presence or absence of substituent as molecular descriptor in correlation with biological activity.
7. What is difference between a hard and a soft drug?
8. CoMFA stands for ----------
9. Define conformational analysis.
10. GTO stands for ----------

Section B (6x5 = 30)

Answer any SIX questions

11. Discuss briefly about 3D-QSAR site model.
12. Write short note on use of computer aided molecular design software
13. Linking sugars are used in solid phase combinatorial synthesis. Support the statement with examples.
14. How is chemical data stored and retrieved? Give examples.
15. What was the need for development of cheminformatics?
16. What do you understand by molecular diversity analysis and virtual screening
17. What are the potentials and prospects of cheminformatics?
18. Discuss in detail APEX 3D.

P.T.O

Section C

Answer any THREE questions (3x10 = 30)

19. What do you understand by library designing? What are the various steps involved in library designing? Support your answer by examples.
20. What are the chemical strategies for introducing carbohydrate molecular diversity into the drug discovery process?
21. Discuss in detail the chemical information system.
22. Using pharmacophore diversity how is combinatorial chemistry library designed.
23. Give a detailed account of use of cheminformatics. What are the job opportunities in the field of cheminformatics?