

Third Year Pharm D Degree Supplementary Examinations - March 2015

Medicinal Chemistry

Time: 3 Hours

Total Marks: 70

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays

(3x10=30)

1. What do you understand about QSAR. Discuss its advantages, limitations and pitfalls with suitable examples.
2. What are anti neoplastic agents. Explain salient structural features involved in different classes of anti neoplastic agents and mechanism of action of alkylating agents.
3. Classify anti hypertensive agents with examples. Discuss its SAR and mechanism of action.

Short notes

(8x5=40)

4. Synthesis and clinical uses of one drug each from the following categories:
 - Folate reductase inhibitors
 - Sulfonylureas
5. What are pro drugs and how they are designed. Explain the importance of pro drug concept in optimizing the pharmacokinetic parameters of a drug.
6. What are antibiotics. Add a note on chemistry and degradation of beta lactam antibiotics.
7. Explain preservatives and antifungal agents.
8. SAR of sulfonamides and mention the synthetic route for sulphamethoxazole.
9. What is the mechanism of smooth muscle relaxation. Discuss the mechanism of action of calcium channel blockers by taking two examples with structure and clinical uses.
10. Narrate the structure of any four anti ameobic drugs and mention the synthesis for metronidazole.
11. Structure, mechanism of action and uses of the following:
 - Acetazolamide
 - Chloramphenicol
 - Choroquine
 - Urotropin
