

**Code No: BP415**

**JAWAHARLAL NEHRU TECHNOLOGY UNIVERSITY HYDERABAD**  
**B. Pharmacy IV year - I-Sem.- I Mid – Term Examinations, Aug/Sept. – 2009**  
**MEDICINAL CHEMISTRY-II**  
**Descriptive Exam – Question Bank**  
**Unit - I**

1. List out the various factors effecting drug action. Discuss at least three factors about their role in the study of drug action?
2. Write short notes on bioisosterism?
3. Outline the various theories of drug action?
4. Write note on receptor theories of drug action?
5. Write short notes on quantitative aspects of drug action?
6. Write about drug-receptor interactions?
7. Write notes on G-Protein coupled receptors?
8. What are factors affecting drug-receptor interactions?
9. Write short notes on computer aided drug design?
10. Write about CADD and molecular modeling?
11. Write notes on Quantum mechanics and Molecular mechanics?
12. Write a applications of molecular modeling in drug design?
13. Write short notes on Q.S.A.R and its applications?
14. Write a short note on Hansch approach?
15. Write a short note on Free Wilson Analysis?
16. Write a short notes on statistical methods used in QSAR?
17. Write short notes on TSAR?

**Unit-II**

18. Write a short note on various mechanisms of drug action?
19. Write about the mechanism of drugs on enzymes?
20. Classify sulfa drugs with examples?
21. Write the structure of sulphaguanidine and explain their synthesis?
22. Describe the S.A.R of sulfa drugs?
23. Discuss the mode of action and uses of sulphonamides ?
24. Write notes on historical development of sulfonamides as antibacterial?
25. Write general synthesis of sulphonamides?
26. Write a short notes on pharmacological and chemical aspects of any two sulphadugs?
27. Write a synthesis, uses and mechanism of action of sulphamethoxazole?
28. Give the synthesis and uses of trimethoprim?
29. Write the structure, synthesis and uses of any sulphadug?
30. Write short notes on cotrimoxazole?
31. Write short notes on metabolism of drugs?
32. Write note on the factors affecting the drug metabolism?
33. Write short notes on Phase-I reactions?
34. What is the role of CYP-450 enzyme in drug metabolism?
35. Write short notes on conjugation reactions?

**Unit-III**

36. Write short notes on chemistry of neurotransmitters?
37. What are Sedatives and Hypnotics? And how they are differentiated?
38. Define the term sedative and hypnotic? Classify sedative and hypnotic drugs with one example each?
39. Write about barbiturates their S.A.R & M.A.O?

**Cont.....[2]**

**[2]**  
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40. Write the synthesis of phenobarbital and Diazepam?
41. Write a detail note on structure activity relation of short acting barbiturates?
42. Write a note on phenobarbital-structure, chemical name, synthesis, therapeutic uses?
43. Write short notes on short acting barbiturates?
44. Give the mechanism of action of any two classes of sedatives?
45. Define antianxiety agents and classify them by giving examples?
46. Write a note on mechanism of action of anxiolytic drugs?
47. Write about benzodiazepines their S.A.R and general mode of action?
48. Give a detailed account of diazepam including its structure, nomenclature, pharmacokinetics, synthesis and uses?
49. Write note on alprazolam structure, chemical name, synthesis and therapeutic uses?
50. Give the different types of psychopharmacological agents with clinical uses?
51. Write note on neuroleptics and give its classification with examples and structures?
52. Write note on phenothiazines including S.A.R & M.A.O?
53. Write the structure, chemical name, synthesis and therapeutic uses of chlorpromazine?
54. Write about butyrophenones and write notes on their S.A.R?
55. Write a note on haloperidol structure, chemical name, synthesis and therapeutic uses?
56. Write notes on clozapine structure, chemical name, synthesis and therapeutic uses?
57. Write note on oxyperline with its structure, chemical name, S.A.R and synthesis?
58. Define and classify epilepsy?
59. What are anti-epileptic drugs classify them with examples?
60. Write the structure, MAO, synthesis and uses phenytoin sodium?
61. Give an account of structure, mode of action, synthesis and therapeutic uses of carbamazepine?
62. Write the synthesis of valproic acid and ethosuximide?
63. Write a note on the psychological disorder depression?
64. Define antidepressants? Classify antidepressant drugs give suitable examples?
65. Write a note on the monoamine oxidase inhibitors?
66. Write short notes on tricyclic antidepressants?
67. Write the synthesis of imipramine and fluoxetine?
68. Write notes on selective serotonin reuptake inhibitors (SSRI) Class of antidepressants?
69. Write the synthesis of doxepin and sertraline?

**Unit-IV**

70. Define general anesthetics? Write their important properties?
71. Write a note on stages of anesthesia?
72. Give the classification of general anesthetics with examples?
73. Write about general anesthetics S.A.R and M.A.O?
74. Write the synthesis and uses of halothane and ketamine?
75. Define local anesthetics? Add a short note on ideal properties of local anesthetics?
76. Write short note on various methods of administration on local anesthetics and uses of each?
77. Classify local anesthetics giving examples?
78. Write short note on mechanism of action of local anesthetics agents?
79. Discuss the S.A.R of local anesthetics agents?
80. Formulate the synthesis of Lidocaine and Benzocaine?
81. Explain the mechanism of action of two classes of local anesthetics?
82. Write short note on the following aspects of local anesthetics    a) Pharmacokinetics    b) Adverse effects    c) Therapeutic uses

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