



Conspectus for government exam of Pharmaceutical Chemistry and Pharmaceutical Analysis

1. Pharmacopoeia identification reactions.
2. Limit tests. Standard solutions.
3. Examination of melting point, boiling point and relative density of drug substances.
4. Examination of sulfated ash. Determination of solubility.
5. Examination of the degree of coloration of liquids.
6. Tests for clarity and degree of opalescence of liquids.
7. Tests for bacterial endotoxins.
8. Water: semi-micro determination.
9. Thin-layer chromatography.
10. High-performance liquid chromatography.
11. Gas chromatography.
12. Refractometry.
13. Polarimetry.
14. Nuclear magnetic resonance spectroscopy.
15. Mass spectrometry.
16. Ultraviolet and visible spectrophotometry.
17. Infrared spectrophotometry.
18. Validation of analytical procedures.
19. Drug absorption, distribution, and metabolism.
20. Barbiturates.
21. Benzodiazepines, Z-drugs.
22. General anesthetics.
23. Local anesthetics.
24. Anxiolytics.
25. Antidepressants.
26. Antipsychotics.
27. Anti-parkinson drugs.
28. Antiepileptic drugs.

29. Antiemetics and antinauseants.
30. Laxatives.
31. Antidiarrheals.
32. Opioid analgesics.
33. Non-opioid analgesics and antipyretics. Antimigraine preparations.
34. Nonsteroidal anti-inflammatory drugs.
35. Psychostimulants and nootropics.
36. Antihistamines - H1, H3-blockers.
37. Drugs for treatment of peptic ulcer and gastroesophageal reflux disease.
38. Antineoplastic drugs.
39. Antiarrhythmic drugs (excluding beta-blockers and calcium antagonists).
40. Calcium channel blockers.
41. ACE inhibitors.
42. Angiotensin II receptor blockers.
43. Diuretics.
44. Peripheral vasodilators.
45. Organic nitrates.
46. Lipid-modifying drugs.
47. Antithrombotic and antihemorrhagic drugs.
48. Penicillins.
49. Cephalosporins.
50. Monobactams and carbapenems.
51. Beta-lactamase inhibitors.
52. Tetracyclines.
53. Macrolides, aminoglycosides.
54. Antibacterial sulfonamides
55. Antibacterial quinolones.
56. Antimycotic drugs.
57. Drugs for treatment of tuberculosis.
58. Antiviral drugs.
59. Cough preparations - expectorants.
60. Cough suppressants.
61. Blood glucose lowering drugs, excluding insulins.
62. Thyroid and antithyroid drugs.
63. Water-soluble vitamins.

64. Fat-soluble vitamins.
65. Sex hormones - progestogens, androgens, estrogens.
66. Oral contraceptives.
67. Anabolic steroids.
68. Glucocorticoids.
69. Mineralocorticoids.
70. Neurotransmitters in the sympathetic and parasympathetic nervous system.
71. Alpha-adrenoreceptor agonists.
72. Beta-adrenoreceptor agonists.
73. Alpha-adrenoreceptor antagonists.
74. Beta-adrenoreceptor antagonists.
75. Parasympathomimetics.
76. Parasympatholytics.

The program was approved by the Department council with Protocol № 01/09.01.2023.

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