

**EDUCATIONAL ESTABLISHMENT  
«GOMEL STATE MEDICAL UNIVERSITY»  
CHAIR OF GENERAL AND CLINICAL PHARMACOLOGY**

**PHARMACOLOGY EXAMINATION QUESTIONS  
THE FACULTY OF FOREIGN STUDENTS**

**GENERAL PHARMACOLOGY**

1. Pharmacology, definition. It's role and place in public health and medical education system, modern problems of pharmacology.
2. The international pharmacopeia. Officinal preparations. International (pharmacopeial, generic) and trading (company, patent) names of drugs.
3. General pharmacology, definition, it's sections. Pharmacokinetics of drugs.
4. Ways of drug administration, classification, comparative characteristic.
5. Pharmacokinetics of drugs. Biotransformation, factors influencing it.
6. The characteristic of ways of drug elimination from the organism. Quantity indicators of elimination speed, their characteristic.
7. Pharmacodynamics: definition, characteristics.
8. Kinds of drug action. The characteristic of the reflectory, resorptive and elective (selective) action.
9. Kinds of drug action. The characteristic of direct and indirect, reversible and irreversible action.
10. Kinds of drug action. The characteristic of the main and side effects.
11. Side effects of drugs and basic approaches to their prevention.
12. A short characteristic of the final pharmacological effects caused by drugs.
13. A dose (definition, classification). Width of the drug therapeutic action. Features of drugs prescription to elderly persons and children.
14. Phenomena developing in repeated drug administration: addiction, tachyphylaxis, sensitization.
15. Drug cumulation, it's types. The phenomenon developing in cases of sudden drug withdrawal: withdrawal syndrome and it's prevention.
16. The basic directions of drug therapy, their description and use width.

**PRESCRIPTION**

1. A prescription, definition and structure.
2. Classification of dosage forms. Galenic and novogalenic drug forms, their similarities and differences.
3. Classification of liquid dosage forms. Solutions for internal and external use, definition and rules of prescription.

4. The characteristic of drug forms for injections. The requirements that drug forms for injections must meet.

## **PARTICULAR PHARMACOLOGY**

1. Drugs affecting afferent innervation. Classification, pharmacological characteristic, clinical use.
2. Local anesthetics, classification, mechanism of action, clinical use.
3. Symptoms of acute poisoning with muscarine and M, N-cholinomimetics of indirect action, treatment.
4. M-cholinoblockers, classification, main effects, application.
5. Symptoms of acute M-cholinoblockers poisoning, treatment.
6. Neuromuscular relaxants (curare-like drugs): definition, classification, sequence of the main effect development.
7.  $\alpha$ -adrenomimetics: main effects, clinical use.
8.  $\beta$ -adrenomimetics: classification, main effects, clinical use.
9.  $\beta$ -adrenoblockers, classification, main effects, clinical use.
10. Classification of central acting neurotropic drugs. The comparative characteristic of drugs for inhalation and noninhalation narcosis.
11. Ethyl alcohol, it's effects on CNS and other systems of an organism.
12. Analgesics. Pharmacological characteristic of non-opioid analgesics, clinical use.
13. Narcotic analgesics (classification, mechanism of action, comparative characteristic, clinical use).
14. Antipsychotic (neuroleptic) drugs: main effects, negative effects, clinical use.
15. Anxiolytics (tranquilizers): classification, mechanism of action, clinical use.
16. Analeptics, comparative characteristic, clinical use.
17. Antitussive drugs: classification, clinical use.
18. Expectorants: classification, indications.
19. Drugs used for treatment of bronchial obstruction syndrome: classification, rules of clinical use.
20. Principles of cardiogenic lung edema treatment, drugs used for that reason.
21. Cardiac glycosides: classification, mechanism of action, indications, rules of clinical use.
22. Classification of drugs used for treatment of ischemic cardiac disease. Organic nitrates (classification, pharmacodynamics, rules of clinical use).
23. Principles of myocardial infarction therapy, drugs used for treatment of myocardial infarction.
24. Hypotensive (antihypertensive) drugs, classification, pharmacodynamics.
25. Clinic and treatment of hypertensive crisis.
26. Diuretics, classification, mechanism of action, indications.
27. Drugs affecting functional activity of myometrium. Myometrial stimulants, clinical use.
28. Tocolytics (uterine relaxants), clinical use.
29. Drugs used for treatment of gastric glands function disorders, classification. Drugs used in treatment of decreased gastric secretion.

30. Drugs used for treatment of increased activity of the acid-peptic factor. Therapy principles, classification of drugs, their mechanism of action.
31. Laxatives: classification, indications.
32. Drugs affecting the system of blood. Erythropoiesis stimulants. Treatment of hypo- and hyperchromic anemias.
33. Antiaggregants: mechanisms of action, clinical use.
34. Anticoagulants: classification, mechanism of action, clinical use.
35. Drugs that affect fibrinolysis: classification, mechanisms of action, clinical use.
36. Pancreatic hormones, their drugs, clinical use. Synthetic (non-hormonal) antidiabetic drugs. Treatment of hyper- and hypoglycemic comas.
37. Adrenal cortex hormone drugs, classification, clinical use, complications arising after a long-term use.
38. Antiinflammatory drugs: classification, mechanisms of action of steroid and nonsteroid antiinflammatory drugs, clinical use.
39. Antiseptics and disinfectants, classification, clinical use.
40. Principles of chemotherapy of bacterial diseases. Antibiotics of the penicillin group: classification, spectrum of action, clinical use.
41. Cephalosporins: classification, spectrum of action, clinical use. Difference between cephalosporins and penicillins.
42. Macrolides and tetracyclines, classification, spectrum of action, clinical use.
43. Chloramphenicol, antibiotics of different groups (lincomycin, rifampicin). Spectrum of action, clinical use.
44. Aminoglycosides, classification, spectrum of action, clinical use.
45. Synthetic antimicrobial drugs. Sulfonamides, classification, mechanism of action, spectrum of action, clinical use.
46. Synthetic antimicrobial drugs. The pharmacological characteristic of quinolone and fluoroquinolone derivatives.
47. Synthetic antimicrobial drugs. Pharmacological characteristic of nitrofurans and nitroimidazole derivatives.
48. Antifungal (antimycotic) drugs: classification, spectrum of action, clinical use.
49. Drugs used for treatment of spirochetoses (antisyphilitic drugs), classification, mechanism of action, clinical use depending on the stage of the disease.
50. Antituberculous drugs, classification, mechanism of action. Principles of pharmacotherapy of tuberculosis.
51. Anthelmintic (antivermicular) drugs, classification. Drugs used for treatment of nematodes.
52. Anthelmintic (antivermicular) drugs, classification. Drugs used for treatment of cestodes and extraintestinal helminthiasis.
53. Antiprotozoal drugs. A pharmacological characteristic of antimalarial drugs.
54. Drugs for treatment of amebiasis: classification, mechanism of action, clinical use.
55. Drugs used for treatment of lamblia, trichomonosis, toxoplasmosis and leishmaniasis. Principles of pharmacotherapy.
56. Antiviral drugs, classification, clinical use in different localizations of viral infection.
57. Antitumor drugs, classification, side effects, clinical use.
58. Main principles of acute poisoning treatment.

## LIST OF PRESCRIPTION DRUGS

1. Solution of lidocaine in ampules
2. Almagel
3. Solution of proserine (neostigmine methylsulfate) in ampules
4. Solution of atropine sulfate in ampules
5. Gastrozepine (pirenzepine) in tablets
6. Salbutamol in the form of aerosol
7. Anaprilinum (propranolol) in tablets
8. **Bisoprolol in tablets**
9. Solution of morphine hydrochloride in ampules
10. Acetylsalicylic acid (aspirin) in tablets.
11. Aminazine (chlorpromazine) in dragee
12. Sulpiride (betamax) in capsules (tablets)
13. Amitriptyline (amyzol) in tablets
14. Solution of diazepam (relanium) in ampules
15. Piracetam (nootropil) in tablets
16. Libexin (prenoxdiazine) in tablets
17. Bromhexine in dragee
18. Solution of euphylline (aminophylline) in ampules
19. Digoxin in tablets
20. Solution of strophanthin K in ampules
21. Solution of novocainamide (procainamide) in ampules
22. Nitroglycerine in tablets
23. **Nitrosorbide in tablets**
24. Solution of verapamil in ampules
25. Fenigidine (nifedipine) in tablets
26. Clophelin (clonidine) in tablets
27. Captopril (capoten) in tablets
28. Solution of magnesium sulphate in ampules
29. Solution of furosemide (lasix) in ampules
30. Pancreatin in tablets
31. Drotaverine (no-spa) in tablets
32. Dragee «Ferroplex»
33. Solution of cyanocobalamin in ampules
34. Heparin in vials (ampules)
35. Insulin in vials
36. Glibenclamide (maninil) in tablets
37. Testosterone propionate oil solution in ampules
38. Tablets «Marvelon» («Regulon»)
39. Solution of prednisolone hydrochloride in ampules
40. Beclometasone in the form of aerosol
41. Ascorbic acid in tablets
42. Ibuprofen in dragee
43. Loratadine in tablets
44. Ketotifen (zaditen) in tablets
45. Amoxicillin in tablets (capsules)
46. Cephalexin in tablets (capsules)
47. Ceftriaxone in vials
48. Doxycycline hydrochloride (vibramycin) in capsules
49. Azithromycin dihydrate in tablets (capsules)
50. Solution of gentamicin sulphate in ampules

51. Levomycetin (chloramphenicol) in tablets
52. Solution of lincomycine hydrochloride in ampules
53. Tablets «Co-trimoxazole» («Bactrim», «Biseptol»)
54. Ciprofloxacin hydrochloride (ciprobay) in tablets
55. Isoniazid in tablets
56. Rifampicin in gelatinous capsules
57. Acyclovir (zovirax) in tablets
58. Chingamine diphosphate (chloroquine) in tablets
59. Metronidazole (trichopol) in tablets
60. Furazolidon in tablets
61. Nystatin in tablets
62. Fluconazole in capsules
63. Mebendazole in tablets