

QUESTIONS FOR THE EXAM FROM PHARMACEUTICAL TECHNOLOGY (1)

General

1. Pharmaceutical technology. Galenics. Systematic classification of pharmaceutical preparations and their dosage forms. Latin nomenclature of dosage forms.
2. Drug as a dispersion system, application pathways of drugs.
3. Solubilization and solubilizers.
4. Dissolution rate of solid substances, relationship with bioavailability.
5. Surface and interface phenomena in liquid systems.
6. Colloidal systems. Phase, molecular, and association colloids.
7. Solutions. Solubility.
8. Dispersion systems of a solid substance in a liquid. Meaning of wetting of solids. Sedimentation.
9. Comminution and sorting of solid substances.
10. Separation of liquid heterogeneous dispersions. Filtration.
11. Polymers as pharmaceutical excipients.
12. Methods for preparing extracts.
13. Vaccines - technological aspects of preparation.
14. Constitutive excipients (vehicles, bases).
15. Pharmaceutical solvents.
16. Water as a pharmaceutical solvent. Waters in the European Pharmacopoeia. Preparation of water with high purity.
17. Excipients stabilizing dispersion systems of solid substances in liquids, kinetic and aggregate instability.
18. Excipients stabilizing dispersion systems of liquid substances in liquids, instability of emulsions.
19. Surfactants, surface activity, chemical structure, the hydrophilic-lipophilic balance of surfactants, classification, and examples of surfactants.
20. Excipients stabilizing the composition of pharmaceutical preparations (antioxidants, chelating substances, buffer solutions, preservatives, and antimicrobial substances).
21. Excipients modifying sensory perceptions (isotonizing substances, taste corrigents, dyes).
22. Excipients of suppositories and pessaries.

Dosage forms

23. Solutions as dosage form, application pathways, and composition.
24. Aromatic waters. Aromatic spirits. Syrups.
25. Liquid preparations for cutaneous application.
26. Oromucosal dosage forms. Buccal tablets, gels, solutions, films. Lozenges. Chewing gums.

- 27. Gels, gel structure.
- 28. Emulsions as dosage forms.
- 29. Suspensions as dosage forms.
- 30. Medicines prepared by drug extraction.
- 31. Ear and nasal preparation.
- 32. Powders as a semi-product and as a dosage form.
- 33. Powders for cutaneous application.
- 34. Rectal preparations.
- 35. Suppositories.
- 36. Vaginal preparations.
- 37. Pessaries.
- 38. Biopharmaceutical aspects of ear and nose preparations.
- 39. Biopharmaceutical aspects of rectal preparations.