Tasks for independent work of the educational component
Work placement in Pharmacy based Technology of Drugs

1. Define powders as a dosage form, their classification and requirements for them. Evaluation of the quality of powders.
2. Rules for mixing powders with substances of different density, bulk mass, and particle structure.
3. Rules for mixing powders with poisonous, narcotic, potent substances and substances prescribed in different quantities.
4. Definition of trituration, their ratio, storage conditions, change and technology, design.
5. Give the classification of extracts by aggregate state. Methods of introducing various extracts into the composition of powders.
6. Give examples of odorous and difficult-to-grind substances. Features of powder technology with them.
7. Properties of substances affecting the order of mixing powders. Features of the technology of powders with coloring substances.
8. Name the solvents for liquid dosage forms, give a brief description. Features of the technology of mixtures with different contents of dry substances (up to 3% and more).
9. List the methods of obtaining purified water and the equipment used. Requirements, types of control and terms of use of treated water.
10. Rules for preparing concentrated solutions (conditions, solvent, etc. used); quality control and storage conditions.
11. Rules for the preparation of mixtures by a volumetric method using concentrated solutions and the procedure for adding tinctures, extracts, syrups to them in accordance with the order of the Ministry of Health No. 197 dated 09.07.93.
12. Describe the drops as a dosage form, their classification. Give methods of checking doses of poisonous and potent medicinal substances in drops.

13. Specify the reasons for the difficulties in the technology of aqueous solutions and ways to eliminate them.
14. List of standard pharmacopoeial liquids with indication of concentration, peculiarities of prescribing them in recipes.
15. Assortment of non-aqueous solvents and their characteristic features.
16. Specify the features of preparing seine solutions with various substances (volatile, non-volatile).
17. Define a standard dropper and indicate the factors affecting the accuracy of dosing. Calibration of a non-standard dropper.
18. Give the classification of the Navy. Specify the features of dissolution of infinitely swelling IUDs.
19. Indicate in what capacity the IUD is used in pharmacy. Give the features of the dissolution of limited swelling IUDs.
20. Define colloidal solutions; list the factors affecting their stability. Name the preparations of protected colloids and indicate the features of their technology.
21. Give cases of formation of suspensions. List the factors affecting their stability.
22. List the methods of preparation of suspensions and indicate their nature.
23. Types of oil emulsions and methods of determining them. Assortment of emulsifiers. Name the stages of emulsion technology.
24. Peculiarities of preparation of althea root infusion from raw materials and extract-concentrate.
25. List the factors affecting the process of extraction of active substances from raw materials and the quality of aqueous extracts.
26. State the peculiarities of preparing water extracts from plant raw materials containing tannins, anthraglycosides, saponins.
27. Assortment and classification of extracts-concentrates. The difference in technology and rules for the introduction of medicinal substances in infusions from raw materials and extracts-concentrates.

28. Characteristics of liniments as a medicinal form, their classification depending on the basis and medical purpose used. Features of suspension liniment technology.
29. Classification of liniments depending on the physical and chemical properties of the ingredients. Features of the technology of liniments-solutions.
30. Classification of ointments by medical purpose and place of use. Name hydrophobic ointment bases.
31. Classification of ointments depending on the physical and chemical properties of medicinal substances. Name hydrophilic ointment bases.
33. Pastes, their classification. Features of preparation of dermatological pastes. Name the emulsifiers used in difil ointment bases.
34. Combined ointments; peculiarities of their technology depending on the properties and percentage content of the input ingredients.
35. Stages of the technological process of suppositories using the pumping method. Basics suitable for this method.
36. Stages of the technological process of suppositories by the pouring method. Bases suitable for this purpose. The influence of the percentage content of active substances on the calculation of the amount of the base.
37. Requirements of SFU for suppositories, significance of their geometric shape. Prescribing and checking the doses of poisonous and potent substances in them.
38. Classification of sterilization methods. Name the methods to be adopted in pharmacy practice.
39. Requirements of the DFU for dosage forms for injections. The principle of selecting stabilizers.
40. List the solvents for injection solutions, the requirements for them. Types of quality control, conditions and terms of storage of water for injections.
41. Define isotonic solutions and name the phenomena that occur when non-isotonic solutions are introduced. Quality control of injection solutions at individual stages of the technological process.
42. Classification of infusion (physiological) solutions. Implementation of the requirements of isotonicity, isohydry, etc. imposed on them.

43. List the dosage forms used in ophthalmology. Requirements for ophthalmic dosage forms, their justification.
44. Ensuring the stability of eye drops and lotions in the process of preparation, use and storage. Classification of stabilizers.
45. Ensuring the sterility of eye drops and lotions before and after opening the package. Nomenclature of preservatives.
46. List the features of eye drops technology options depending on the solubility of the ingredients that make up the drops. Prolongers of eye drops.
47. Requirements for eye ointments. Characteristics of bases for eye ointments.
48. Requirements of the Federal Drug Administration for dosage forms with antibiotics. Cooking conditions. Features of administration of antibiotics in different dosage forms.
49. Definition of incompatibilities and their classification. Name the reasons for physical incompatibilities. Obligations of the pharmacist in relation to incompatible prescriptions. The concept of pharmacological incompatibilities.
50. Name the causes of chemical incompatibilities.