

№	1) krok 2021
Topic	Industrial production of soft dosage forms
Task	A pharmaceutical factory produces suppositories with hydrophilic bases. What parameter is measured during standardization of such suppositories?
Correct answer	Dissolution time
B	Mechanical strength
C	Boiling point
D	Dry residue
E	Resuspension
№	2) krok 2021
Topic	Industrial production of soft dosage forms
Task	A pharmacist prepares a vaseline-based ointment. The vehicle was heated to 40°C. What substance was introduced into the heated vehicle?
Correct answer	Camphor
B	Benzoic acid
C	Vinilin (polyvinyl butyl ether)
D	Anesthesin
E	Streptocide
№	3) krok 2021
Topic	Industrial production of injectable and infusion dosage forms
Task	A pharmacy prepares sodium chloride solutions for injections or infusions. What are the additional requirements to the quality of sodium chloride for infusion solutions?
Correct answer	Chemically pure, depyrogenated
B	Type «for injections»
C	Anhydrous, analytical grade pure
D	No manganese salt admixtures
E	Analytical grade pure
№	4) krok 2021
Topic	Industrial production of powders
Task	Powders are a solid dosage form for internal or external use. What stage is not a part of powder production?
Correct answer	Granulation

B	Packaging
C	Mixing
D	Comminution
E	Sifting
№	5) krok 2021
Topic	Industrial production of injectable and infusion dosage forms
Task	The ampoule workshop of a factory produces a 5% oil-based solution of tocopherol acetate for injections. What filling technique should be used to fill the ampoules with this solution?
Correct answer	Syringe
B	Syringe and vacuum
C	Vapor condensation
D	Vacuum
E	Syringe and vapor condensation
№	6) krok 2021
Topic	Industrial production of emulsions, suspensions
Task	A pharmacist prepares an oil emulsion with menthol. How should menthol be introduced in this case?
Correct answer	Menthol should be dissolved in oil before preparing the primary emulsion
B	Menthol should be comminuted with the emulsifier and then with a part of water, prepared for the dilution of the primary emulsion
C	Menthol should be dissolved in the purified water
D	Menthol should be comminuted in a mortar with several drops of ethanol and then mixed with the primary emulsion
E	
№	7) krok 2021
Topic	Industrial production of extracts. Tinctures.
Task	In production of extraction drugs with maximum purity level, the extracts are purified using the method of liquid- liquid extraction, which is the process of:
Correct answer	Extraction from one liquid using another
B	Ultrasound exposure
C	Heating the extract
D	Electrolyte action
E	Dialysis
№	8) krok 2021

Topic	Extraction from one liquid using another
Task	A pharmacy makes aqueous extracts. What extractant is used in preparation of infusions and decoctions?
Correct answer	<b>Purified water</b>
B	Glycerin
C	Peach oil
D	Mint oil
E	Ethyl alcohol
№	9) krok 2021
Topic	Industrial production of extracts. Tinctures.
Task	A pharmaceutical company produces a belladonna tincture. In the process of standardization, the excessive content of active substances was detected. How can this situation be remedied?
Correct answer	Dilute the tincture with extractant to normal concentration
B	This kind of deviation is not important
C	Filter the tincture through adsorbents
D	The tincture is a non-recoverable reject material
E	Precipitate excessive active substances
№	10) krok 2021
Topic	Industrial production of capsules
Task	Soft gelatin capsules with an elongated neck are called:
Correct answer	<b>Tubatines</b>
B	Rectal capsules
C	Medules
D	Spansules
E	Microcapsules
№	11) krok 2021
Topic	Industrial production of extracts. Tinctures.
Task	A pharmacist has prepared an oak bark decoction. What is the ratio of the herbal raw material to extractant:
Correct answer	0.048611111
B	0.0625
C	0.045138889
D	0.055555556

E	0.319444444
№	12) krok 2021
Topic	Industrial production of tablets
Task	Among the various types of tablet coating there are enterosoluble coatings. Where in the body are they dissolved
Correct answer	Intestine
B	Oral cavity
C	Rectum
D	Stomach
E	Esophagus
№	13) krok 2021
Topic	Industrial production of injectable and infusion dosage forms
Task	When making ampoules, certain admixtures are introduced into the glass to change its properties. Why is boron oxide added into the glass?
Correct answer	<b>To improve its chemical resistance</b>
B	To change its color
C	To increase its thermal resistance
D	To increase its mechanical strength
E	To lower its melting temperature
№	14) krok 2021
Topic	Industrial production of ophthalmic, ear, nasal dosage forms
Task	A pharmacist has prepared a vehicle for eye ointments. What method of vehicle sterilization should be chosen in this case?
Correct answer	<b>Dry heat</b>
B	Ultraviolet irradiation
C	Flowing steam
D	Membrane filtration
E	Pasteurization
№	15) krok 2021
Topic	Industrial production of soft dosage forms
Task	A pharmacist has prepared suppositories with novocaine (procaine) hydrochloride using a rolling technique. The novocaine hydrochloride content is less than 5%. How is this substance introduced into the base in this case?
Correct answer	<b>Dissolution in the minimal amount of water</b>

B	Dissolution in the minimal amount of castor oil
C	Dissolution in ethyl alcohol
D	Dissolution in the melted base
E	Dissolution in the minimal amount of alcohol-water-glycerin mixture
№	16) krok 2021
Topic	Industrial production of tablets
Task	What lubricants are used in tablet manufacturing?
Correct answer	Calcium stearate, stearic acid
B	Water, ethanol
C	Solutions of high-molecular compounds
D	Tween 80, Aerosily
E	Starch paste
№	17) krok 2021
Topic	Industrial production of ophthalmic, ear, nasal dosage forms
Task	A pharmacy has received a formulation for eye drops with protargol (silver proteinate). What substance will be used to make the eye drops isotonic?
Correct answer	<b>No isotonation is needed</b>
B	Sodium nitrate
C	Boric acid
D	Sodium sulfate
E	Sodium chloride
№	18) krok 2021
Topic	Industrial production of injectable and infusion dosage forms
Task	A pharmacist has prepared an ascorbic acid solution for injections. What stabilizer was used in this case
Correct answer	Sodium sulfite
B	Boric acid
C	0.1 M solution of sodium hydroxide
D	0.1 M solution of hydrochloric acid
E	Weibel stabilizer
№	19) krok 2021
Topic	Industrial production of pharmaceutical solutions

Task	A pharmaceutical factory prepares syrups for taste-masking of medicines. What substance must be removed from such syrups to prevent jellification of the end product?
Correct answer	<b>Pectin</b>
B	Starch
C	Glucose
D	Fructose
E	Sucrose
№	20) krok 2021
Topic	Industrial production of extracts. Tinctures.
Task	The phytochemical department of a pharmaceutical manufacture produces maximally purified extracts. In the process, specific methods are used for the extract purification. Which description corresponds with the dialysis method?
Correct answer	The characteristic of biopolymer molecules that does not allow them to pass through semi-permeable membranes
B	The process of electrolyte action
C	The process of heating the extract
D	The process of gas absorption
E	The process of extraction from one liquid using another liquid
№	21) krok 2021
Topic	A pharmaceutical factory produces
Task	various types of tablets. What is the
Correct answer	purpose of Solublettae tablets?
B	Preparation of solutions for various pharmaceutical purposes
C	Rectal administration
D	Implantation
E	Sublingual administration
№	1) krok 2020
Topic	industrial production of injection and infusion medicinal forms
Task	Specify the isotonic concentration of a sodium chloride solution:
Correct answer	0.9%
B	5.0%
C	10.0%
D	1.8%

E	1.0%
№	2) krok 2020
Topic	industrial production of phyto- and organopreparations and biogenic stimulants
Task	A pharmaceutical factory produces medicinal syrups. What substances ensure microbial stability of this dosage form?
Correct answer	Preservatives
B	Pectic substances
C	Solubilizers
D	Emulsifiers
E	Thickeners
№	3) krok 2020
Topic	industrial production of soft dosage forms
Task	Specify the fluid used to coat the forms for pouring of the suppositories with hydrophilic vehicles:
Correct answer	Vaseline (petroleum jelly)
B	Purified water
C	Glycerine
D	Dimethylsulfoxide
E	Glycerine-water solution
№	4) krok 2020
Topic	industrial production of Extracts. Tinctures
Task	The phytochemical department of a pharmaceutical manufacture produces maximally purified extracts. In the process, specific methods are used for the extract purification. Which description corresponds with the dialysis method?
Correct answer	The characteristic of biopolymer molecules that does not allow them to pass through semi-permeable membranes
B	The process of electrolyte action
C	The process of heating the extract
D	The process of extraction from one liquid using another liquid
E	The process of gas absorption
№	5) krok 2020
Topic	industrial production of Ear, eye, nasal medicinal forms
Task	A pharmaceutical company produces sterile aqueous solutions for eye rinsing and moisturizing, as well as for impregnation of the materials that are applied to the eyes topically. Name these solutions:
Correct answer	Eye lotions

B	Eye drops
C	Eye inserts
D	Eye sprays
E	Eye ointments
№	6) krok 2020
Topic	industrial production of soft dosage forms
Task	A pharmaceutical factory produces ointments. Name the stage of the manufacturing process that allows to obtain a uniform ointment:
Correct answer	Ointment concentrate production
B	Mixing components with the vehicle
C	Vehicle production
D	Dispersion
E	Homogenization
№	7) krok 2020
Topic	industrial production of tablet
Task	According to the State Pharmacopoeia of Ukraine, the tablets taken internally can be classified into several different types. The pulsatile release tablets can be classified as:
Correct answer	Modified-release tablets
B	Modified-release tablets
C	Chewable tablets
D	Effervescent tablets
E	Dispersible tablets
№	8) krok 2020
Topic	industrial production of injection and infusion medicinal forms
Task	Name the main indicator that differentiates water for injection from purified water:
Correct answer	Apyrogenicity
B	pH value
C	The way in which it was obtained
D	Absence of mechanical inclusions
E	Absence of heavy metals
№	9) krok 2020



Topic	industrial production of injection and infusion medicinal forms
Task	A pharmacist has prepared an injection solution of ascorbic acid. What substance is necessary for solution stabilization in this case?
Correct answer	Sodium sulfite
B	Sodium chloride
C	Sodium acetate
D	Sodium citrate
E	Sodium bromide
№	10) krok 2020
Topic	industrial production of medical capsules
Task	To improve structural and mechanical properties of capsule shells, to ensure their proper elasticity and reduce their brittleness, the following substances are introduced into the gelatin mass:
Correct answer	Plasticizers
B	Thickeners
C	Stabilizers
D	Pigments
E	Preservatives
№	11) krok 2020
Topic	industrial production of phyto- and organopreparations and biogenic stimulants
Task	A pharmacist prepares powders with riboflavin. How should riboflavin be introduced into the powder mixture?
Correct answer	''Three layers'' method
B	Mix the components in the ascending . order based on their amount
C	Mix the components in the descending order based on their amount
D	Riboflavin powder should be sifted in advance
E	Riboflavin should be added on the top of the prepared mixture of other ingredients
№	12) krok 2020
Topic	industrial production of Extracts. Tinctures.
Task	When obtaining individual substances, the choice of an extractant is determined mainly by its:
Correct answer	Pharmacological inertness
B	Selectivity toward active substances
C	Cost

D	Anti-hydrolysis effect
E	Thermostability
№	13) krok 2020
Topic	industrial production of medical capsules
Task	Microcapsules are made by coating solid particles of the substance being encapsulated with a shell consisting of metallic silver, zinc, etc. Name this method of making microcapsules:
Correct answer	Galvanization
B	Pelleting
C	Slurrying of the nuclei
D	Coacervation
E	Polymerization
№	14) krok 2020
Topic	industrial production of Extracts. Tinctures.
Task	A pharmaceutical company produces galenic preparations. These preparations contain:
Correct answer	A sum of active substances
B	Only one active substance
C	Smell-correcting agents
D	Taste-correcting agents
E	Preservatives
№	15) krok 2020
Topic	industrial production of soft dosage forms
Task	Aqueous lanolin consists of:
Correct answer	70 parts of anhydrous lanolin and 30 parts of water
B	80 parts of anhydrous lanolin and 20 parts of water
C	5 parts of anhydrous lanolin and 95 parts of water
D	50 parts of anhydrous lanolin and 50 parts of water
E	90 parts of anhydrous lanolin and 10 parts of water
№	16) krok 2020
Topic	industrial production of injection and infusion
Task	A certain injection solution cannot undergo thermal sterilization, because high temperatures lead to its hydrolysis with formation of formaldehyde and ammonia. Name this solution:

Correct answer	Hexamethylenetetramine solution
B	Glucose solution
C	Aminazine solution
D	Diprazine (promethazine) solution
E	Novocaine (procaine) solution
№	17) krok 2020
Topic	industrial production of soft dosage forms
Task	To prepare an ointment, a pharmacist has additionally used paraffin. What is the role of paraffin in the technology?
Correct answer	Densifier
B	Preservative
C	Vehicle
D	Emulsifier
E	Dispersing agent for powders
№	18) krok 2020
Topic	industrial production of Extracts. Tinctures
Task	The phytochemical workshop of a factory produces liquid extracts. What extractants are used in the manufacturing process?
Correct answer	Aqueous-alcoholic solutions
B	Water
C	Dichloroethane
D	Ammonia solution
E	Chloroform
№	19) krok 2020
Topic	industrial production of Extracts. Tinctures
Task	Specify a potent herbal raw material, infusion from which is made in 1:400 ratio:
Correct answer	Foxglove leaves
B	Motherwort grass
C	Sage leaves
D	Althaea roots
E	Valerian roots and rhizomes
№	1) krok 2018
Topic	industrial production of pharmaceutical solutions

Task	A factory workshop producing suspensions and emulsions is going to develop the manufacture of new drugs. What mechanisms can be used for the ultrasound processing of drugs?
Correct answer	Liquid whistle, magnetostrictive source
B	Dismembrator, electrical impulse plasmolyzer
C	Disintegrator, liquid whistle
D	Rotor-pulsation apparatus, dismembrator
E	Centrifugal mixer with rotating housing
№	2) krok 2018
Topic	industrial production of tablet
Task	A pharmaceutical factory produces tablets of sodium chloride. What is the method of their production?
Correct answer	Direct compression without additional substances
B	Moulding
C	Direct compression with the addition of excipients
D	Wet granulation prior to compression
E	Dry granulation prior to compression
№	3) krok 2018
Topic	industrial production of tablet
Task	There are various groups of adjuvants used in tablet production. What is the function of excipients?
Correct answer	To make pills of a certain weight
B	To create necessary adhesive force between particles
C	To improve disintegration
D	To improve the flowability of granular material
E	To improve the taste
№	4) krok 2018
Topic	Machines and apparatus
Task	Various types of dryers can be used for granule dehumidification. Specify the type of "SP-30" dryer:
Correct answer	Fluidized bed dryer
B	Freeze dryer
C	Infrared dryer
D	Silica gel dryer another liquid
E	Forced air dryer

№	5) krok 2018
Topic	industrial production of injection and infusion medicinal forms
Task	Ampoule workshop of a factory produces 5% oil solution of tocopherol acetate for injections. What method of filling the ampoules is optimal in this case?
Correct answer	Syringe
B	Vacuum
C	Devaporation
D	Syringe and vacuum
E	Syringe and devaporation
№	6) krok 2018
Topic	industrial production of tablets
Task	Production of tablets requires stage-to- stage quality control. What devices are used to determine the particle size distribution (fraction) of granules?
Correct answer	Standard set of sieves
B	Various vibrosieves
C	Friabilators
D	Laboratory identifiers
E	Microscope
№	7) krok 2018
Topic	industrial production of tablet
Task	Among various types of tablet external layers there are enterosoluble coatings. Where in the body are they dissolved?
Correct answer	Intestine
B	Stomach
C	Oral cavity
D	Rectum
E	Esophagus
№	8) krok 2018
Topic	industrial production of injection and infusion medicinal forms
Task	Specify the control methods aimed at detecting mechanical impurities in parenteral solutions:
Correct answer	Visual optical
B	Limulus test

C	Amperometric
D	Gravitational
E	NMR and UV-visible spectroscopy
№	9) krok 2018
Topic	industrial production of injection and infusion medicinal forms
Task	What stage is the last in making injection solutions?
Correct answer	Labeling
B	Sterilization
C	Filtering
D	Qualitative control
E	Quantitative control
№	10) krok 2018
Topic	industrial production of powders
Task	Dosage precision during tablet making mainly depends on the following technological property of tablet mass:
Correct answer	Flowability
B	Relative density
C	Compression ratio
D	Compressibility
E	Lyophilic property
№	11) krok 2018
Topic	industrial production of Extracts. Tinctures.
Task	Quality of dried extracts is assessed according to several criteria. Specify the highest acceptable amount of moisture in dried extracts according to the State Pharmacopoeia of Ukraine:
Correct answer	5%
B	25%
C	20%
D	75%
E	95%prepared mixture of other ingredients
№	12) krok 2018
Topic	industrial production of injection and infusion medicinal forms

Task	Tyndallization is used at a pharmaceutical factory as a sterilization method for thermolabile substances. Essentially this method consists of:
Correct answer	Triple heating of solution to 40-60oC with 24-hour-long intervals in between for thermostating
B	Autoclaving at 119-121oC with pressure at 1.0-1.1 atm
C	Sterilization with flowing steam at 100oC
D	Sterilization with dry heat at 180-200oC for a lengthy period of time
E	Sterilization with high-frequency and microwave frequency current
№	13) krok 2018
Topic	industrial production of Extracts. Tinctures
Task	When an extractant is filtered through a herbal raw material to obtain an extract of the substances soluble in this extractant, this process is called:
Correct answer	Percolation
B	Maceration
C	Remaceration
D	Turbo extraction
E	Steeping
№	14) krok 2018
Topic	industrial production of phyto- and organopreparations and biogenic stimulants
Task	Phytochemical workshop of a factory manufactures pancreatin. What is the source material for obtaining pancreatin?
Correct answer	Pancreas of pigs or cattle
B	Gastric mucosa of pigs
C	Lungs of cattle
D	Heart of cattle
E	Egg white
№	15) krok 2018
Topic	industrial production of Extracts. Tinctures
Task	The following substance is used as an extractant in production of liquid extracts:
Correct answer	Ethanol
B	Acetone
C	Dichloroethane
D	Chloroform

E	Glycerine
№	16) krok 2018
Topic	industrial production of drugs under pressure
Task	Propellants are used in aerosols production. Specify the function of propellants:
Correct answer	Create pressure in the package
B	Action prolongation
C	Stabilization
D	Emulsification
E	Dispersion
№	17) krok 2018
Topic	industrial production of tablet
Task	What factors affect tablet disintegration?
Correct answer	Amount and nature of disintegrating agents
B	Poor flowability
C	High specific gravity of powders
D	Tablet powder contains lamellar crystals
E	Heterogeneity of granulated material
№	18) krok 2018
Topic	industrial production of Extracts. Tinctures
Task	A pharmaceutical company produces belladonna tincture. In the process of standardization, excessive content of active substances was detected. How can this situation be remedied?
Correct answer	Dilute the tincture with extractant to normal concentration
B	Precipitate excessive active substances
C	Filter the tincture through adsorbent
D	The tincture is a non-recoverable reject material
E	This kind of deviation is not important
№	19) krok 2018
Topic	industrial production of tablets
Task	A pharmaceutical company produces tablets. Tableting by means of direct compression requires:
Correct answer	No prior granulation
B	Prior granulation



C	Formation of masses
D	Prior homogenization
E	Application of hydraulic press
№	20) krok 2018
Topic	industrial production of Soft dosage forms
Task	A pharmaceutical company produces suppositories made from thermolabile medicinal substances. What method is used in their production?
Correct answer	Pressing
B	Steeping
C	Pouring
D	Rolling
E	Dispersion
№	21) krok 2018
Topic	Machines and apparatus
Task	A pharmaceutical company produces liquid dosage forms. What principle is used in rotary pulsation apparatus to obtain an emulsion?
Correct answer	Mechanical dispersion
B	Ultrasonic dispersion
C	Solubilization
D	Coacervation
E	Maceration
№	1) krok 2019
Topic	industrial production of tablets
Task	A tablet shop produces trituration tablets. What quality indicators ARE NOT relevant for these tablets?
Correct answer	Abrasion, resistance to crushing
B	Disintegration and dissolution
C	Homogeneity of dosage
D	Homogeneity of content
E	Microbiological purity
№	2) krok 2019
Topic	industrial production of medical capsules

Task	A pharmacist prepared some powders whose composition includes camphor. What capsules are required for their packaging?
Correct answer	Parchment
B	Paper
C	Waxed
D	Paraffin
E	Cellophane
№	3) krok 2019
Topic	industrial production of medical capsules
Task	While filling hard gelatin capsules such glidants as 0,1% - 0,3% aerosil or magnesium stearate along with 0,5% - 1% talc are often added to the filling agent in order to improve the following properties:
Correct answer	Flowability
B	Homogeneity
C	Regulation of moisture content
D	Homogeneity of mixing
E	Ability to contact molding
№	4) krok 2019
Topic	Machines and apparatus
Task	Grinding equipment is classified by the way of grinding. What kind of machines does a roller crusher relate to?
Correct answer	Crushing
B	Cutting
C	Abrasive
D	Impact
E	Impact-centrifugal
№	5) krok 2019
Topic	industrial production of tablets
Task	A tablet production unit produces presscoated tablets. What equipment is used for this purpose?
Correct answer	Double pressing tableting machine
B	Dragee pan
C	Marmerizer
D	Eccentric tableting machine
E	Triturating machine

№	6) krok 2019
Topic	industrial production of Extracts. Tinctures
Task	A pharmaceutical enterprise produces a dense extract with 0,25% ammonia solution used as an extractant. This dense extract is:
Correct answer	Licorice
B	Sagebrush (Artemisia)
C	Valerian
D	Male fern
E	Motherwort (Leonurus)
№	7) krok 2019
Topic	industrial production of powders
Task	Preparation of multicomponent powders with phenyl salicylate and camphor is accompanied by generation of some fluid. What is the reason for their incompatibility?
Correct answer	Eutectic alloy formation
B	Adsorption
C	Crystallization water exudation
D	Hygroscopic components
E	Gases separation
№	8) krok 2019
Topic	industrial production of injection and infusion medicinal forms
Task	In the production of injection solutions the activated carbon is used as:
Correct answer	Purification
B	Buffer system creation
C	Antioxidant properties increasing
D	Chemical resistance of ampoule's glass increasing
E	Ampoules residual stress relaxation
№	9) krok 2019
Topic	industrial production of tablets.medicinal forms
Task	A pharmaceutical enterprise produces nitroglycerine tablets. What is the method of their production?
Correct answer	Extrusion
B	Direct pressing, without adjuvants
C	Direct pressing with addition of adjuvants

D	Pressing with preliminary wet granulation
E	Pressing with preliminary dry granulation
№	10) krok 2019
Topic	industrial production of powders
Task	A pharmacy got an order for powders containing ascorbic acid and sodium hydrocarbonate. What process takes place between the ingredients?
Correct answer	Dampening
B	Oxidization
C	Absorption
D	Sedimentation
E	Stratification
№	11) krok 2019
Topic	industrial production of drugs under pressure
Task	Aerosol department of a pharmaceutical factory uses condensed gases in the capacity of propellents. Which of the following substances relates to the group of condensed gases?
Correct answer	Freon
B	Nitrogen
C	Nitrous oxide
D	Methylene chloride
E	Ethylene chloride
№	12) krok 2019
Topic	industrial production of tablets
Task	A pharmaceutical factory produces tablets of sodium chloride. What is the method of their production?
Correct answer	Direct compression without additional substances
B	Moulding
C	Direct compression with the addition of excipients
D	Wet granulation prior to compression
E	Dry granulation prior to compression
№	13) krok 2019
Topic	industrial production of pharmaceutical solutions

Task	A pharmaceutical factory produces suspensions and emulsions. Specify the equipment which is used for dispersion and mixing in the liquid medium:
Correct answer	Rotor-pulsation apparatus, colloid mixers
B	Drum mixers
C	Oscillating mixers
D	Anchor mixers
E	Gate mixers
№	14) krok 2019
Topic	industrial production of tablets
Task	Production of stage-to-stage quality control. What devices are used to determine the particle size distribution (fraction) of granules?
Correct answer	Standard set of sieves
B	Various vibrosieves
C	Friabilators
D	Laboratory IDs
E	Microscope
№	15) krok 2019
Topic	industrial production of Extracts. Tinctures
Task	It is required to prepare furacilin solution (1:5000). What is the dissolution peculiarity of furacilin?
Correct answer	It dissolves in the boiling water purified in the presence of sodium chloride
B	It dissolves in the cold purified water
C	It dissolves in a minimal amount of ethyl alcohol
D	It dissolves in the purified water after the trituration
E	It dissolves in the filtered purified water
№	16) krok 2019
Topic	industrial production of Extracts. Tinctures
Task	A pharmacist has to prepare an aqueous extract of medicinal plants. What can be used as a substitute of plant material in the drug preparation?
Correct answer	Standardized extract concentrate
B	Tincture
C	Liquid extract

D	Thick extract
E	Aromatic water
№	17) krok 2019
Topic	industrial production of injections and infusions
Task	Ampules are produced of glass with appropriate heat resistance. An ampule would meet the requirements of technical standards if the ampule glass has the following characteristic:
Correct answer	Thermal shock resistance
B	Easy cutting of capillaries
C	Quality ampule sealing
D	Withstanding the stresses during production and transportation
E	Protection of light-sensitive materials
№	18) krok 2019
Topic	industrial production of injections and infusions
Task	Ampule quality control involves testing for chemical resistance. What methods are used to test this indicator?
Correct answer	Various acid-base indicators, pH meter, gravimetric methods
B	Visual, gravimetric methods
C	Photoelastic method
D	Autoclaving followed by titration with a solution of hydrochloric acid
E	Exposing the glass samples to the action of sodium carbonate and sodium hydrocarbonate solutions
№	19) krok 2019
Topic	industrial production of tablets
Task	One of the recent industrial medical forms that is used in pediatric practice and intended for young children unable of swallowing tablets is:
Correct answer	Tubatines
B	Dragee
C	Spansules
D	Gelatin microcapsules
E	Granules
№	20) krok 2019
Topic	industrial production of Soft dosage forms

Task	A pharmaceutic plant producing aerosol forms uses liquefied gases as propellents. Which of the following substances relates to the group of liquefied gases?
Correct answer	Freons
B	Nitrogen
C	Nitrous oxide
D	Methylene chloride
E	Ethylene chloride
№	21) krok 2019
Topic	industrial production of injections and infusions
Task	Ampule workshop of a pharmaceutical factory produces the procaine hydrochloride solution. This solution is stabilized by adding:
Correct answer	0,1 mol/l of hydrochloric acid solution
B	0,1 mol/l of sodium hydroxide solution
C	0,1 mol/l of sodium hydrogen carbonate solution
D	20,0 of sodium hydrogen carbonate
E	1,5 g of aminopropylene glycol
№	22) krok 2019
Topic	industrial production of Extracts. Tinctures
Task	A pharmaceutical company produces concentrated extracts. Specify the concentration of ethanol in the extractant required for the production.
Correct answer	20-40%
B	90-96%
C	70-75%
D	50-60%
E	70-90%
№	23) krok 2019
Topic	industrial production of pharmaceutical solutions
Task	A factory workshop producing suspensions and emulsions is going to start manufacturing new drugs. What equipment can be used for the ultrasound processing of drugs?
Correct answer	Liquid whistle, magnetostrictive source
B	Dismembrator, electrical impulse plasmolyser
C	Disintegrator, liquid whistle

D	Rotor-pulsation apparatus, dismembrator
E	Centrifugal mixer with rotating housing
№	24) krok 2019
Topic	industrial production of soft dosage forms
Task	The ointment workshop of a pharmaceutical plant launches production of a new ointment. Specify the manufacturing operation that ensures equal distribution of the drug substance in the base
Correct answer	Homogenization
B	Preparation of the base
C	Standartization
D	Pre-packing
E	Packaging
№	25) krok 2019
Topic	industrial production of drugs under pressure
Task	The aerosol workshop of a pharmaceutical plant uses various groups of propellants in the production. What propellants relate to the group of volatile organic solvents?
Correct answer	Methyl chloride, ethylene chloride
B	Freon (CFCs)
C	Propane, butane, isobutene
D	Vinyl and methyl chloride
E	Carbon dioxide
№	26) krok 2019
Topic	industrial production of Extracts. Tinctures
Task	The phytochemical workshop of a pharmaceutical plant manufactures liquid extracts. How many volume parts of the liquid extract can be produced from one weight part of herbal raw materials in compliance with the State Pharmacopoeia?
Correct answer	1 part
B	0,5 part
C	10 parts
D	5 parts
E	3 parts
№	27) krok 2019
Topic	industrial production of injections and infusions



Task	Sterilization methods applied for the preparation of drugs under aseptic conditions can be differentiated into physical, mechanical, and chemical ones. Specify the chemical method of sterilization:
Correct answer	Addition of preservatives
B	Dry heat sterilization
C	Radiation sterilization
D	Pressure steam sterilization
E	UV light sterilization
№	28) krok 2019
Topic	industrial production of injections and infusions
Task	Which of the methods to fill ampoules with injectable solutions makes it possible to protect capillaries from contamination with thick and viscous solutions?
Correct answer	Syringe
B	Vacuum
C	Turbo vacuum
D	Vapor condensation
E	Squeezing-through
№	29) krok 2019
Topic	industrial production of injections and infusion
Task	Quality of ampouled injection solutions is tested as to various parameters. How many ampullae are to be checked for assessing the quality of sealing (hermeticity)?
Correct answer	100%
B	97%
C	80%
D	75%
E	50%
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization.
Task	A pharmaceutical company produces a medicine under the brand name "Corglyconum". What herbal raw material is used in preparation of this drug?
Correct answer	Lily-of-the-valley grass
B	Wormwood grass

C	Dandelion roots
D	Plantain foliage
E	Buckthorn bark
№	krok 2017-2018
Topic	Production of pharmaceutical solution
Task	A factory workshop producing suspensions and emulsions is going to develop the manufacture of new drugs. What mechanisms can be used for the ultrasound processing of drugs?
Correct answer	Liquid whistle, magnetostrictive source
B	Dismembrator, electrical impulse plasmolyzer
C	Disintegrator, liquid whistle
D	Rotor-pulsation apparatus, dismembrator
E	Centrifugal mixer with rotating housing
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	A pharmaceutical factory produces tablets of sodium chloride. What is the method of their production?
Correct answer	Direct compression without additional substances
B	Moulding
C	Direct compression with the addition of excipients
D	Wet granulation prior to compression
E	Dry granulation prior to compression
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	There are various groups of adjuvants used in tablet production. What is the function of excipients?
Correct answer	To make pills of a certain weight
B	To create necessary adhesive force between particles
C	To improve disintegration
D	To improve the flowability of granular material
E	To improve the taste
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Various types of dryers can be used for granule dehumidification. Specify the type of "CLI-30" dryer:

Correct answer	Fluidized bed dryer
B	Freeze dryer
C	Infrared dryer
D	Silica gel dryer
E	Forced air dryer
№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	Ampoule workshop of a factory produces 5% oil solution of tocopherol acetate for injections. What method of filling the ampoules is optimal in this case?
Correct answer	Syringe
B	Vacuum
C	Devaporation
D	Syringe and vacuum
E	Syringe and devaporation
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Production of tablets requires stage-to- stage quality control. What devices are used to determine the particle size distribution (fraction) of granules?
Correct answer	Standard set of sieves
B	Various vibrosieves
C	Friabilators
D	Laboratory identifiers
E	Microscope
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Among various types of tablet external layers there are enterosoluble coatings. Where in the body are they dissolved?
Correct answer	Intestine
B	Stomach
C	Oral cavity
D	Rectum
E	Esophagus

№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	Specify the control methods aimed at detecting mechanical impurities in parenteral solutions:
Correct answer	Visual optical
B	Limulus test
C	Amperometric
D	Gravitational
E	NMR and UV-visible spectroscopy
№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	What stage is the last in making injection solutions?
Correct answer	Labeling
B	Sterilization
C	Filtering
D	Qualitative control
E	Quantitative control
№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	Specify the indicator that measures the total contribution of various solutes to the osmotic pressure of the solution:
Correct answer	Osmolality
B	Isohydricity
C	Isotonicity
D	Isoviscosity
E	Apyrogenicity
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Dosage precision during tablet making mainly depends on the following technological property of tablet mass:
Correct answer	Flowability
B	Relative density
C	Compression ratio
D	Compressibility

E	Lyophilic property
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization.
Task	Quality of dried extracts is assessed according to several criteria. Specify the highest acceptable amount of moisture in dried extracts according to the State Pharmacopoeia of Ukraine:
Correct answer	5%
B	25%
C	20%
D	75%
E	95%
№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	Tyndallization is used at a pharmaceutical factory as a sterilization method for thermolabile substances. Essentially this method consists of:
Correct answer	Triple heating of solution to 40-60°C with 24-hour-long intervals in between for thermostating
B	Autoclaving at 119-121°C with pressure at 1.0-1.1 atm
C	Sterilization with flowing steam at 100°C
D	Sterilization with dry heat at 180-200°C for a lengthy period of time
E	Sterilization with high-frequency and microwave frequency current
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization.
Task	When an extractant is filtered through a herbal raw material to obtain an extract of the substances soluble in this extractant, this process is called:
Correct answer	Percolation
B	Maceration
C	Remaceration
D	Turbo extraction
E	Steeping
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Phyfochemical workshop of a factory manufactures pancreatin. What is the source material for obtaining pancreatin?

Correct answer	Pancreas of pigs or cattle
B	Gastric mucosa of pigs
C	Lungs of cattle
D	Heart of cattle
E	Egg white
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization.
Task	The following substance is used as an extractant in production of liquid extracts:
Correct answer	Ethanol
B	Acetone
C	Dichloroethane
D	Chloroform
E	Glycerine
№	krok 2017-2018
Topic	Production of pressurized patches and medicines
Task	Propellants are used in aerosols production. Specify the function of propellants:
Correct answer	Create pressure in the package
B	Action prolongation
C	Stabilization
D	Emulsification
E	Dispersion
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	What factors affect tablet disintegration?
Correct answer	Amount and nature of disintegrating agents
B	Poor flowability
C	High specific gravity of powders
D	Tablet powder contains lamellar crystals
E	Heterogeneity of granulated material
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization.

Task	A pharmaceutical company produces essential oils via a method that consists of essential oil transfer into gas phase followed by its absorption with fats and then its extraction with alcohol. Name this method:
Correct answer	Enfleurage
B	Compression
C	Extraction
D	Hydrodistillation
E	Dynamic sorption
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization.
Task	A pharmaceutical company produces belladonna tincture. In the process of standardization, excessive content of active substances was detected. How can this situation be remedied?
Correct answer	Dilute the tincture with extractant to normal concentration
B	Precipitate excessive active substances
C	Filter the tincture through adsorbent
D	The tincture is a non-recoverable reject material
E	This kind of deviation is not important
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization.
Task	The phytochemical workshop of a factory produces liquid extracts. What extractants are used in this manufacturing process?
Correct answer	Aqueous-alcoholic solutions
B	Chloroform
C	Ammonia solution
D	Dichloroethane
E	Water
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	A pharmaceutical company produces tablets. Tableting by means of direct compression requires:
Correct answer	No prior granulation
B	Prior granulation
C	Formation of masses
D	Prior homogenization

E	Application of hydraulic press
№	krok 2017-2018
Topic	Technology of production of soft medicines
Task	A pharmaceutical company produces suppositories made from thermolabile medicinal substances. What method is used in their production?
Correct answer	Pressing
B	Steeping
C	Pouring
D	Rolling
E	Dispersion
№	krok 2017-2018
Topic	Production of pharmaceutical solution
Task	A pharmaceutical company produces liquid dosage forms. What principle is used in rotary pulsation apparatus to obtain an emulsion?
Correct answer	Mechanical dispersion
B	Ultrasonic dispersion
C	Solubilization
D	Coacervation
E	Maceration
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization.
Task	A pharmaceutical company produces aromatic waters. Peppermint water should be prepared in the following proportion:
Correct answer	0.736111111
B	1.430555556
C	R4000
D	1:10
E	<b>1:01</b>
№	krok 2017-2018
Topic	Technology of production of soft medicines
Task	A pharmaceutical company produces soft dosage forms. What indicator should be measured additionally for the soft dosage forms that are intended for application on heavily damaged skin?



Correct answer	Sterility
B	pH
C	Identification
D	Microbiological purity
E	Quantitative determination
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	A pharmaceutical company produces various medicines. Name the dosage form consisting of separate hard dry particles disintegrated to varying degree:
Correct answer	Powders
B	Tablets
C	Suspensions
D	Emulsions
E	Dried extract
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Core tablets that are to be made into dragees must not have a flat shape. Why such requirement is necessary?
Correct answer	To prevent them from adhesion to each other
B	They are not durable enough
C	To avoid prolonged contact with overlaying suspension
D	To improve their appearance
E	To speed up the process of applying the coating
№	krok 2017-2018
Topic	Technology of production of soft medicines
Task	Name the optimal vehicle for soluble vaginal suppositories:
Correct answer	Polyethylene oxide
B	Cocoabutter
C	Glycerine
D	Fat
E	Hard fat
№	krok 2017-2018

Topic	Industrial production of simple and complex powders
Task	What tablet coating protects stomach from harmful influence of active ingredients?
Correct answer	Intestinally absorbed
B	Water-soluble
C	Gastrically absorbed
D	Fat-soluble
E	. -
№	krok 2017-2018
Topic	Technology of production of soft medicines
Task	In the process of industrial production of rectal suppositories, certain substances insoluble both in water and suppository vehicle are introduced into this dosage form. Specify the optimal way to introduce these substances:
Correct answer	Introduce the substances as a suspension
B	Introduce the substances as an emulsion
C	Dissolve the substances in the water heated to 45°C
D	Melt a part of fatty vehicle and dissolve the substances there
E	Melt all of fatty vehicle and dissolve the substances there
№	krok 2017-2018
Topic	Technology of production of soft medicines
Task	In the process of industrial production, certain adjuvants are included in the soft dosage forms as pH regulators. Name these adjuvants:
Correct answer	Citric acid, sodium phosphate salts
B	Paraffin, spermaceti
C	Glycerine, dimethyl sulfoxide
D	Sodium lauryl sulfate, tween emulsifiers
E	Benzalkonium chloride, benzyl alcohol
№	krok 2011, 2010
Topic	Industrial Technology Of Drugs
Task	For granule drying different types of dryers are used. The dryer SP-30 relates to the following type:
Correct answer	Withfluidized bed
B	Sublimation
C	Infrared

D	With silica gel column
E	With a forced air circulation
№	krok 2011, 2010
Topic	Industrial Technology Of Drugs
Task	One of the tablet coatings is enterosoluble capsule. They get solved in:
Correct answer	Bowels
B	Stomach
C	Oral cavity
D	Rectum
E	–
№	krok 2011, 2010
Topic	Manufacture Of Pharmaceutical Solutions.
Task	A pharmacist prepared eyedrops with boric acid. What sterilization method was applied?
Correct answer	Sterilization by saturation vaporpressure
B	Tyndallization
C	Sterilization by dry heat
D	Sterilization by gases
E	By high-frequency current
№	krok 2011
Topic	Production Of Injection and Infusion Solutions.
Task	Which of the listed methods of filling ampoules with injectable solutions can protect the capillaries from contamination with thick and viscous solutions?
Correct answer	Syringe method
B	Vacuum method
C	Turbo-vacuum method
D	Steam condensing method
E	Solution squeezing method
№	krok 2011
Topic	Production Of Injection and Infusion Solutions.
Task	Production of injection solutions involves an operation of solution filtration. What filters are used for sterile filtration?
Correct answer	Filter candles

B	Nutschfilters
C	FilterdevelopedbytheKharkiv Chemo pharmaceutical Research Institute
D	Pressurefilters
E	Mushroomfilter
№	krok 2011
Topic	Industrial Technology Of Drugs
Task	A tablet shop produces trituration tablets. What quality indicators <b>ARENOT</b> relevant for these tablets?
Correct answer	Abrasion, resistance to crushing
B	Disintegration and dissolution
C	Homogeneity of dosage
D	Homogeneity of content
E	Microbiological purity
№	krok 2010
Topic	Industrial Production Of Simple and Complex Powders.
Task	A pharmacist prepared some powders whose composition includes camphor. What capsules are required for their packaging?
Correct answer	Parchment
B	Paper
C	Waxed
D	Paraffin
E	Cellophane
№	krok 2011
Topic	Industrial Production Of Simple and Complex Powders.
Task	A pharmacy received a prescription for a topical powder including a substance that is hard to disperse. Which of the listed fluids may be used for dispersing the substance?
Correct answer	Diethyl ether
B	Purified water
C	Water for injections
D	Dimexid
E	Isopropyl alcohol
№	krok 2011
Topic	Industrial Technology Of Drugs

Task	While filling hard gelatin capsules such glidants as 0,1% - 0,3% aerosil or magnesium stearate along with 0,5% - 1% talc are often added to the filling agent in order to improve the following properties:
Correct answer	Flowability
B	Homogeneity
C	Regulation of moisture content
D	Homogeneity of mixing
E	Ability to contact molding
№	krok 2011
Topic	Industrial Technology Of Drugs
Task	Grinding equipment is classified by the way of grinding. What kind of machines does a roller crusher relate to?
Correct answer	Crushing
B	Cutting
C	Abrasive
D	Impact
E	Impact-centrifugal
№	krok 2010
Topic	Industrial Technology Of Drugs
Task	A tablet production unit produces presscoated tablets. What equipment is used for this purpose?
Correct answer	Double pressing tableting machine
B	Dragee pan
C	Marmerizer
D	Eccentric tableting machine
E	Triturating machine
№	krok 2010
Topic	Production Of Tinctures and Extracts Standardization.
Task	A pharmaceutical enterprise produces a dense extract with 0,25% ammonia solution used as an extractant. This dense extract is:
Correct answer	Licorice
B	Sagebrush ( <i>Artemisia</i> )
C	Valerian
D	Male fern
E	Motherwort ( <i>Leonurus</i> )

№	krok 2010
Topic	Industrial production of simple and complex powders
Task	A pharmacist-technologist has to prepare a medication with the following formulation: Rp.: Mentholi 0,1 Glycerini 10,0 M.D.S. Nasal drops. What is the reason for their incompatibility?
Correct answer	Insolubility of ingredients
B	Separation of the mixture
C	Adsorption of the medicinal agent
D	Eutectic alloy formation
E	Coagulation of colloidal system
№	krok 2010
Topic	Industrial production of simple and complex powders
Task	Preparation of multicomponent powders with phenyl salicylate and camphor is accompanied by generation of some fluid. What is the reason for their incompatibility?
Correct answer	Eutectic alloy formation
B	Adsorption
C	Crystallization water exudation
D	Hygroscopic components
E	Gases separation
№	krok 2010
Topic	Production of injection and infusion solutions
Task	In the production of injection solutions the activated carbon is used as:
Correct answer	Purification
B	Buffer system creation
C	Antioxidant properties increasing
D	Chemical resistance of ampoule's glass increasing
E	Ampoules residual stress relaxation
№	krok 2010
Topic	Industrial production of simple and complex powders
Task	A pharmaceutical enterprise produces nitroglycerine tablets. What is the method of their production?
Correct answer	Extrusion
B	Direct pressing, without adjuvants

C	Direct pressing with addition of adjuvants
D	Pressing with preliminary wet granulation
E	Pressing with preliminary dry granulation
№	krok 2010, 2009
Topic	Industrial production of simple and complex powders
Task	A pharmacy got an order for powders containing ascorbic acid and sodium hydrocarbonate. What process takes place between the ingredients?
Correct answer	Dampening
B	Oxidization
C	Absorption
D	Sedimentation
E	Stratification
№	krok 2010, 2009
Topic	production of pressurized patches and medicines
Task	Aerosol department of pharmaceutical factory uses condensed gases in the capacity of propellents. Which of the following substances relates to the group of condensed gases?
Correct answer	Freon
B	Nitrogen
C	Nitrous oxide
D	Methylene chloride
E	Ethylene chloride
№	krok 2013
Topic	Manufacture of pharmaceutical solutions
Task	A pharmacy prepared a solution of macromolecular substance with limited swelling capacity. What solution was labelled " <i>warm up before use</i> "?
Correct answer	Gelatin
B	Trypsin
C	Pepsin
D	Methyl cellulose
E	Pancreatin
№	krok 2013

Topic	Industrial production of simple and complex powders
Task	A pharmaceutical factory produces tablets of sodium chloride. What is the method of their production?
Correct answer	Direct compression without additional substances
B	Moulding
C	Direct compression with the addition of excipients
D	Wet granulation prior to compression
E	Dry granulation prior to compression
№	krok 2013
Topic	Manufacture of pharmaceutical solutions
Task	A pharmaceutical factory produces suspensions and emulsions. Specify the equipment which is used for dispersion and mixing in the liquid medium:
Correct answer	Rotor-pulsation apparatus, colloid mixers
B	Drum mixers
C	Oscillating mixers
D	Anchor mixers
E	Gate mixers
№	krok 2013
Topic	Industrial production of simple and complex powders
Task	Production of tablets requires stage-to-stage quality control. What devices are used to determine the particle size distribution (fraction) of granules?
Correct answer	Standard set of sieves
B	Various vibrosieves
C	Friabilators
D	Laboratory IDs
E	Microscope
№	krok 2013
Topic	Industrial production of simple and complex powders
Task	Pharmacies prepare triturations of toxic and superpotent substances. They can be prepared in a following ratio:
Correct answer	1:10 and 1:100
B	1:10 only
C	0.736111111



D	0.388888889
E	1:100 only
№	krok 2013
Topic	Manufacture of pharmaceutical solutions
Task	It is required to prepare furacilin solution (1:5000). What is the dissolution peculiarity of furacilin?
Correct answer	It dissolves in the boiling water purified in the presence of sodium chloride
B	It dissolves in the cold purified water
C	It dissolves in a minimal amount of ethyl alcohol
D	It dissolves in the purified water after the trituration
E	It dissolves in the filtered purified water
№	krok 2013
Topic	Industrial production of simple and complex powders
Task	A pharmacist prepares powders with papaverine hydrochloride. What hand scales should be used for weighing out 0,05 g of substance?
Correct answer	BP 1,0
B	BP 5,0
C	BP 20,0
D	BP 10,0
E	BP 2,0
№	krok 2013
Topic	Production of tinctures and extracts. Standardization
Task	A pharmacist has to prepare an aqueous extract of medicinal plants. What can be used as a substitute of plant material in the drug preparation?
Correct answer	Standardized extract concentrate
B	Tincture
C	Liquid extract
D	Thick extract
E	Aromatic water
№	krok 2013, 2012
Topic	Industrial production of simple and complex powders

Task	A pharmacy received a prescription: Rp.: Dibazoli 0,05 Papaverini hydrochloridi 0,15 Sacchari 2,5 M. fiat pulv. Divide in partes aequales №10. Specify the weight of a single powder dose:
Correct answer	0.27
B	2.7
C	0.25
D	0.26
E	0.3
№	krok 2013
Topic	production of injection and infusion solution
Task	Ampules are produced of glass with appropriate heat resistance. An ampule would meet the requirements of technical standards if the ampule glass has the following characteristic:
Correct answer	Thermal shock resistance
B	Easy cutting of capillaries
C	Quality ampule sealing
D	Withstanding the stresses during production and transportation
E	Protection of light-sensitive materials
№	krok 2013
Topic	production of injection and infusion solution
Task	Ampule quality control involves testing for chemical resistance. What methods are used to test this indicator?
Correct answer	Various acid-base indicators, pH meter, gravimetric methods
B	Visual, gravimetric methods
C	Photoelastic method
D	Autoclaving followed by titration with a solution of hydrochloric acid
E	Exposing the glass samples to the action of sodium carbonate and sodium hydrocarbonate solutions
№	krok 2013
Topic	Technology of production of soft medicines
Task	A pharmacist prepared the massage cream of the following composition: Beeswax 12,0 Almond oil 68,5 Spermaceti 12,0 Anhydrous lanolin 7,5 Essential oil of lavender 3 drops. Specify the cream type:
Correct answer	Oily
B	Non-oily
C	Emulsion

D	Suspension
E	Combined
№	krok 2013
Topic	Industrial production of simple and complex powders
Task	One of the recent industrial medical forms that is used in pediatric practice and intended for young children unable of swallowing tablets is:
Correct answer	Tubatines
B	Dragee
C	Spansules
D	Gelatin microcapsules
E	Granules
№	krok 2013, 2012
Topic	production of pressurized patches and medicines
Task	A pharmaceutic plant producing aerosol forms uses liquefied gases as propellents. Which of the following substances relates to the group of liquefied gases?
Correct answer	Freons
B	Nitrogen
C	Nitrous oxide
D	Methylene chloride
E	Ethylene chloride
№	krok 2013
Topic	Manufacture of pharmaceutical solutions
Task	A pharmacist has to prepare a drug by the prescription: Rp.: Natrii hydrocarbonatis 2,0 Natrii benzoatis 1,5 Liquoris Ammonii anisatis 4 ml Aquae Mentae 100 ml M.D.S. 1 tablespoon 3 times a day. Specify the component that is added in the first place:
Correct answer	Mint water
B	Sugar syrup
C	Liquoris Ammonii anisatis
D	Sodium hydrogen carbonate
E	Sodium benzoate
№	krok 2013

Topic	Manufacture of pharmaceutical solutions
Task	Ampule workshop of a pharmaceutical factory produces the procaine hydrochloride solution. This solution is stabilized by adding:
Correct answer	0,1 mol/l of hydrochloric acid solution
B	0,1 mol/l of sodium hydroxide solution
C	0,1 mol/l of sodium hydrogen carbonatesolution
D	20,0 of sodium hydrogen carbonate
E	1,5 g of aminopropylene glycol
№	krok 2014
Topic	Production of Tinctures and Extracts Standardization.
Task	A pharmaceutical company produces concentrated extracts. Specify the concentration of ethanol in the extractant required for the production.
Correct answer	20-40%
B	90-96%
C	70-75%
D	50-60%
E	70-90%
№	krok 2014
Topic	Production of pharmaceutical solution
Task	A factory workshop producing suspensions and emulsions is going to start manufacturing new drugs. What equipment can be used for the ultrasound processing of drugs?
Correct answer	Liquid whistle, magnetostrictive source
B	Dismembrator, electrical impulse plasmolyser
C	Disintegrator, liquid whistle
D	Rotor-pulsation apparatus, dismembrator
E	Centrifugal mixer with rotating housing
№	krok 2014
Topic	Technology of production of soft medicines
Task	The ointment workshop of a pharmaceutical plant launches production of a new ointment. Specify the manufacturing operation that ensures equal distribution of the drug substance in the base
Correct answer	Homogenization
B	Preparation of the base

C	Standartization
D	Pre-packing
E	Packaging
№	krok 2014
Topic	Production of pressurized patches and medicines
Task	The aerosol workshop of a pharmaceutical plant uses various groups of propellants in the production. What propellants relate to the group of volatile organic solvents?
Correct answer	Methyl chloride, ethylene chloride
B	Freon (CFCs)
C	Propane, butane, isobutene
D	Vinyl and methyl chloride
E	Carbon dioxide
№	krok 2014 2012
Topic	Production of Tinctures and Extracts Standardization.
Task	The phytochemical workshop of a pharmaceutical plant manufactures liquid extracts. How many volume parts of the liquid extract can be produced from one weight part of herbal raw materials in compliance with the State Pharmacopoeia?
Correct answer	1 part
B	0,5 part
C	10 parts
D	5 parts
E	3 parts
№	krok 2014
Topic	Industrial production of simple and complex powders
Task	An analytical chemist of the quality control department of a pharmaceutical plant has to determine the average weight of glibenclamide tablets. How many tablets should be tested for this purpose?
Correct answer	20
B	10
C	5
D	50
E	30
№	krok 2014

Topic	Production of injection and infusion solutions
Task	Sterilization methods applied for the preparation of drugs under aseptic conditions can be differentiated into physical, mechanical, and chemical ones. Specify the chemical method of sterilization:
Correct answer	Addition of preservatives
B	Dry heat sterilization
C	Radiation sterilization
D	Pressure steam sterilization
E	UV light sterilization
№	krok 2014
Topic	Production of injection and infusion solutions
Task	Which of the methods to fill ampoules with injectable solutions makes it possible to protect capillaries from contamination with thick and viscous solutions?
Correct answer	Syringe
B	Vacuum
C	Turbo vacuum
D	Vapor condensation
E	Squeezing-through
№	krok 2014
Topic	Production of injection and infusion solutions
Task	Quality of ampouled injection solutions is tested as to various parameters. How many ampullae are to be checked for assessing the quality of sealing (hermeticity)?
Correct answer	100%
B	97%
C	80%
D	75%
E	50%
№	krok 2009
Topic	Production of pressurized patches and medicines
Task	Aerosol production involves usage of propellants relating to different groups. Choose the propellants that relate to the group of volatile organic solvents:
Correct answer	Freons

B	Methylene chloride, ethylene chloride
C	Propane, butane, isobutane
D	Vinyl chloride and methyl chloride
E	Carbon dioxide
№	krok 2009
Topic	Technology of production of soft drugs
Task	A pharmaceutical factory produces camphor oil for topical application. What oil is to be used as a solvent?
Correct answer	Sunflower seed
B	Peach
C	Vaseline
D	Olive
E	Plum
№	krok 2009
Topic	Industrial production of simple and complex powders
Task	Adjuvant substances in the production of tablets give the tableted mass all necessary technological properties, ensure dosage precision, mechanical strength and stability of tablets during their storage. What adjuvant substances facilitate disintegration or solution of the tablets in the organism?
Correct answer	Disintegrants
B	Antifriction agents
C	Lubricants
D	Filling agents
E	Flavors
№	krok 2009
Topic	Manufacture of tinctures and extracts. Standardization
Task	A phytochemical department of a pharmaceutical factory produces valerian tincture of fresh material. Technological peculiarity of its production is that it should be produced on the base of:
Correct answer	70% ethanol with the ratio 1:5
B	70% ethanol with the ratio 1:10
C	90% ethanol with the ratio 1:5
D	90% ethanol with the ratio 1:10
E	95% ethanol with the ratio 1:10

№	krok 2009
Topic	Manufacture of tinctures and extracts. Standardization
Task	A phytochemical department of a pharmaceutical factory produces biogenic stimulators out of different raw materials. Specify the plant-derived biogenic stimulators:
Correct answer	Liquid extract of aloe, aloe liniment, aloe juice, biosedum
B	Liquid extract of aloe, peloidinum, biosedum juice
C	Peloidinum, humisolum, torfotum, Fibspro injectionibus
D	Vitreous body, Suspesio Placetae proinjectionibus, aloe juice, biosedum
E	Peloidinum, humisolum, torfotum, plasmol, solcoseryl
№	krok 2009
Topic	Technology of production of soft drugs
Task	Lipophilic bases for suppositories include:
Correct answer	Mixtures of hydrogenated fats
B	Polyethylene oxide base
C	Gelatin-glycerol base
D	Collagen base
E	Glycerol soap base
№	krok 2009
Topic	Manufacture of tinctures and extracts. Standardization
Task	While producing phytopreparations and organotherapeutic preparations different kinds of dryers are used. What dryer would be the most effective for drying thermolabile compounds?
Correct answer	Freeze-dryer
B	Roller dryer
C	Band dryer
D	Drying oven
E	Drum dryer
№	krok 2009
Topic	Production of injection and infusion solutions
Task	All the medications require special storage conditions according to their physical and physicochemical properties. Ampouled solution of sodium adenosine triphosphate (ATP) should be stored under the following temperature:
Correct answer	3 – 5° C



B	0 – 2° C
C	7 – 10° C
D	10° C
E	12 – 15° C
№	krok 2013
Topic	Preparation of aqueous and non-aqueous solutions. Evaluation of the quality of solutions
Task	The simple sugar syrup consists of:
Correct answer	64 parts of sugar and 36 parts of water
B	73 parts of sugar, 22 parts of water, 5parts of 90% alcohol
C	50 parts of sugar and 50 parts of water
D	65 parts of sugar, 33 parts of water, 2parts of 90% alcohol
E	45 parts of sugar and 55 parts of water
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization
Task	A pharmaceutical company produces a medicine under the brand name "Corglyconum". What herbal raw material is used in preparation of this drug?
Correct answer	Lily-of-the-valley grass
B	Wormwood grass
C	Dandelion roots
D	Plantain foliage
E	Buckthorn bark
№	krok 2017-2018
Topic	Production of emulsions, suspensions
Task	A factory workshop producing suspensions and emulsions is going to develop the Production of new drugs. What mechanisms can be used for the ultrasound processing of drugs?
Correct answer	Liquid whistle, magnetostrictive source
B	Dismembrator, electrical impulse plasmolyzer
C	Disintegrator, liquid whistle
D	Rotor-pulsation apparatus, dismembrator
E	Centrifugal mixer with rotating housing
№	krok 2017-2018

Topic	Industrial production of simple and complex powders
Task	A pharmaceutical factory produces tablets of sodium chloride. What is the method of their production?
Correct answer	Direct compression without additional substances
B	Moulding
C	Direct compression with the addition of excipients
D	Wet granulation prior to compression
E	Dry granulation prior to compression
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	There are various groups of adjuvants used in tablet production. What is the function of excipients?
Correct answer	To make pills of a certain weight
B	To create necessary adhesive force between particles
C	To improve disintegration
D	To improve the flowability of granular material
E	To improve the taste
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Various types of dryers can be used for granule dehumidification. Specify the type of "SP-30" dryer:
Correct answer	Fluidized bed dryer
B	Freeze dryer
C	Infrared dryer
D	Silica gel dryer
E	Forced air dryer
№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	Ampoule workshop of a factory produces 5% oil solution of tocopherol acetate for injections. What method of filling the ampoules is optimal in this case?
Correct answer	Syringe
B	Vacuum
C	Devaporation
D	Syringe and vacuum

E	Syringe and devaporation
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Production of tablets requires stage-to- stage quality control. What devices are used to determine the particle size distribution (fraction) of granules?
Correct answer	Standard set of sieves
B	Various vibrosieves
C	Friabilators
D	Laboratory identifiers
E	Microscope
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Among various types of tablet external layers there are enterosoluble coatings. Where in the body are they dissolved?
Correct answer	Intestine
B	Stomach
C	Oral cavity
D	Rectum
E	Esophagus
№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	Specify the control methods aimed at detecting mechanical impurities in parenteral solutions:
Correct answer	Visual optical
B	Limulus test
C	Amperometric
D	Gravitational
E	NMR and UV-visible spectroscopy
№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	What stage is the last in making injection solutions?
Correct answer	Labeling
B	Sterilization

C	Filtering
D	Qualitative control
E	Quantitative control
№	krok 2017-2018
Topic	Production of injection and infusion solutions
Task	Specify the indicator that measures the total contribution of various solutes to the osmotic pressure of the solution:
Correct answer	Osmolality
B	Isohydricity
C	Isotonicity
D	Isoviscosity
E	Apyrogenicity
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Dosage precision during tablet making mainly depends on the following technological property of tablet mass:
Correct answer	Flowability
B	Relative density
C	Compression ratio
D	Compressibility
E	Lyophilic property
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization
Task	Quality of dried extracts is assessed according to several criteria. Specify the highest acceptable amount of moisture in dried extracts according to the State Pharmacopoeia of Ukraine:
Correct answer	5%
B	25%
C	20%
D	75%
E	95%
№	krok 2017-2018
Topic	Production of injection and infusion solutions

Task	Tyndallization is used at a pharmaceutical factory as a sterilization method for thermolabile substances. Essentially this method consists of:
Correct answer	Triple heating of solution to 40-60°C with 24-hour-long intervals in between for thermostating
B	Autoclaving at 119-121°C with pressure at 1.0-1.1 atm
C	Sterilization with flowing steam at 100°C
D	Sterilization with dry heat at 180-200°C for a lengthy period of time
E	Sterilization with high-frequency and microwave frequency current
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization
Task	When an extractant is filtered through a herbal raw material to obtain an extract of the substances soluble in this extractant, this process is called:
Correct answer	Percolation
B	Maceration
C	Remaceration
D	Turbo extraction
E	Steeping
№	krok 2017-2018
Topic	Production of organic preparations
Task	Phytochemical workshop of a factory Productions pancreatin. What is the source material for obtaining pancreatin?
Correct answer	Pancreas of pigs or cattle
B	Gastric mucosa of pigs
C	Lungs of cattle
D	Heart of cattle
E	Egg white
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization
Task	The following substance is used as an extractant in production of liquid extracts:
Correct answer	Ethanol
B	Acetone
C	Dichloroethane
D	Chloroform

E	Glycerine
№	krok 2017-2018
Topic	Production of plasters and medicines under pressure
Task	Propellants are used in aerosols production. Specify the function of propellants:
Correct answer	Create pressure in the package
B	Action prolongation
C	Stabilization
D	Emulsification
E	Dispersion
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	What factors affect tablet disintegration?
Correct answer	Amount and nature of disintegrating agents
B	Poor flowability
C	High specific gravity of powders
D	Tablet powder contains lamellar crystals
E	Heterogeneity of granulated material
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization
Task	A pharmaceutical company produces essential oils via a method that consists of essential oil transfer into gas phase followed by its absorption with fats and then its extraction with alcohol. Name this method:
Correct answer	Enfleurage
B	Compression
C	Extraction
D	Hydrodistillation
E	Dynamic sorption
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization
Task	A pharmaceutical company produces belladonna tincture. In the process of standardization, excessive content of active substances was detected. How can this situation be remedied?
Correct answer	Dilute the tincture with extractant to normal concentration

B	Precipitate excessive active substances
C	Filter the tincture through adsorbent
D	The tincture is a non-recoverable reject material
E	This kind of deviation is not important
№	krok 2017-2018
Topic	Production of tinctures and extracts. Standardization
Task	The phytochemical workshop of a factory produces liquid extracts. What extractants are used in this manufacturing process?
Correct answer	Aqueous-alcoholic solutions
B	Chloroform
C	Ammonia solution
D	Dichloroethane
E	Water
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	A pharmaceutical company produces tablets. Tableting by means of direct compression requires:
Correct answer	No prior granulation
B	Prior granulation
C	Formation of masses
D	Prior homogenization
E	Application of hydraulic press
№	krok 2017-2018
Topic	Technology of production of soft drugs
Task	A pharmaceutical company produces suppositories made from thermolabile medicinal substances. What method is used in their production?
Correct answer	Pressing
B	Steeping
C	Pouring
D	Rolling
E	Dispersion
№	krok 2017-2018
Topic	Production of emulsions, suspensions

Task	A pharmaceutical company produces liquid dosage forms. What principle is used in rotary pulsation apparatus to obtain an emulsion?
Correct answer	Mechanical dispersion
B	Ultrasonic dispersion
C	Solubilization
D	Coacervation
E	Maceration
№	krok 2017-2018
Topic	Production of pharmaceutical solutions
Task	A pharmaceutical company produces aromatic waters. Peppermint water should be prepared in the following proportion:
Correct answer	0.736111111
B	1.430555556
C	2.819444444
D	1:10
E	1:01
№	krok 2017-2018
Topic	Technology of production of soft drugs
Task	A pharmaceutical company produces soft dosage forms. What indicator should be measured additionally for the soft dosage forms that are intended for application on heavily damaged skin?
Correct answer	Sterility
B	pH
C	Identification
D	Microbiological purity
E	Quantitative determination
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	A pharmaceutical company produces various medicines. Name the dosage form consisting of separate hard dry particles disintegrated to varying degree:
Correct answer	Powders
B	Tablets
C	Suspensions



D	Emulsions
E	Dried extract
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	Core tablets that are to be made into dragees must not have a flat shape. Why such requirement is necessary?
Correct answer	To prevent them from adhesion to each other
B	They are not durable enough
C	To avoid prolonged contact with overlaying suspension
D	To improve their appearance
E	To speed up the process of applying the coating
№	krok 2017-2018
Topic	Technology of production of soft drugs
Task	Name the optimal vehicle for soluble vaginal suppositories:
Correct answer	Polyethylene oxide
B	Cocoa butter
C	Glycerine
D	Fat
E	Hard fat
№	krok 2017-2018
Topic	Industrial production of simple and complex powders
Task	What tablet coating protects stomach from harmful influence of active ingredients?
Correct answer	Intestinally absorbed
B	Water-soluble
C	Gastrically absorbed
D	Fat-soluble
E	-
№	krok 2017-2018
Topic	Technology of production of soft drugs
Task	In the process of industrial production of rectal suppositories, certain substances insoluble both in water and suppository vehicle are introduced into this dosage form. Specify the optimal way to introduce these substances:
Correct answer	Introduce the substances as a suspension

B	Introduce the substances as an emulsion
C	Dissolve the substances in the water heated to 45°C
D	Melt a part of fatty vehicle and dissolve the substances there
E	Melt all of fatty vehicle and dissolve the substances there
№	krok 2017-2018
Topic	Technology of production of soft drugs
Task	In the process of industrial production, certain adjuvants are included in the soft dosage forms as pH regulators. Name these adjuvants:
Correct answer	Citric acid, sodium phosphate salts
B	Paraffin, spermaceti
C	Glycerine, dimethyl sulfoxide
D	Sodium lauryl sulfate, tween emulsifiers
E	Benzalkonium chloride, benzyl alcohol