

1. A sample of biological material contains mercury. Specify the method of mercury isolation:

- A. Destruction
- B. Mineralization
- C. Steam distillation
- D. Isolation by organic solvents
- E. Isolation by acidified alcohol

2. A pharmacist has to prepare an oil emulsion with menthol. Specify the appropriate way of the active substance incorporation:

- A. Dissolution in oil
- B. Dispersion with the addition of ready emulsion
- C. Dissolution in water intended for diluting the primary emulsion
- D. Dissolution in the ready emulsion by heating
- E. Incorporation into the ready primary emulsion

3. It is required to prepare a decoction of bearberry leaves. Specify the ratio of raw materials to the extractant if not indicated in the formulation:

- A. 1:10
- B. 1:20
- C. 1:30
- D. 1:5
- E. 1:400

4. A pharmacist prepared an injectable solution of novocaine. What stabilizer had been used?

- A. Hydrochloric acid solution
- B. Sodium bicarbonate solution
- C. Stabilizator of Weibel
- D. Sodium sulfite solution
- E. Sodium thiosulfate solution

5. A disabled veteran of the WW2 has been prescribed codeine powder. What is the maximum permissible amount of codeine that can be dispensed by the prescription?

- A. 0,2
- B. 1,0
- C. 0,6
- D. 1,2
- E. 0,1

6. Certain groups of drugs are subject to strict record keeping and storage in pharmacies. Specify a drug that relates to the group of narcotics:

- A. Ethylmorphine hydrochloride
- B. Dicaine
- C. Analgene
- D. Dephadrinum
- E. Clonidine

7. Under the analytical normative documents, atropine sulfate should be titrated with hydrochloric acid solution in the anhydrous acetic acid medium in the presence of the following indicator:

- A. Crystal violet
- B. Thymol blue
- C. Phenolphthalein
- D. Methyl orange
- E. Methylene blue

8. Losartan as a part of treatment of arterial hypertension is contraindicated in case of:

- A. Pregnancy
- B. Hyperglycemia
- C. Urine acid diathesis
- D. Hyperlipidemia
- E. Hypokalemia

9. Which of the following drugs is used for thrombolytic therapy in case of myocardial infarction?

- A. Streptokinase
- B. Heparin
- C. Phenylinum
- D. Ticlopidine
- E. Acetylsalicylic acid

10. At the end of the drug action addicts develop severe mental, neurological and somatic disorders. This complex of symptoms is called:

- A. Withdrawal syndrome
- B. Tachyphylaxis
- C. Sensibilization
- D. Cumulation
- E. Tolerance

11. Patients with heart failure caused by persisting cardiac and coronary vessel dysfunction can be

recommended preparations produced from the following herbal raw material:

- A. Hawthorn fruits
- B. Calendula flowers
- C. Ginseng roots
- D. Aralia roots
- E. Barberry roots

12. Rutin exhibits P-vitamin activity. What medicinal plant is used as starting materials for the industrial production of rutin?

- A. Fructus Sophorae japonicae
- B. Fructus Hippophaes rhamnoides
- C. Flores Helichrysi arenarii
- D. Herba Bidentis tripartitae
- E. Herba Polygoni avicularis

13. A patient came to a pharmacy to purchase cowberry leaves. Which of the available herbal raw materials can be offered as a substitute?

- A. *Folium Uvae ursi*
- B. *Rizoma Calami*
- C. *Rizoma et radix Sanquisorbae officinalis*
- D. *Herba Achilleae millefolii*
- E. *Radix Taraxaci officinalis*

14. Pharmaceutical warehouse received a batch of herbal raw material of cinnamon rose. Under the State Pharmacopoeia, it is required to test this raw material for the following active substances:

- A. Ascorbic acid
- B. Flavonoids
- C. Tannins
- D. Anthracene derivatives
- E. Essential oil

15. Under the analytical normative documents, prior to direct bromatometric determination of arsenous acid anhydride the following substance should be added to the analyzed solution:

- A. Potassium bromide
- B. Potassium nitrate
- C. Sodium chloride
- D. Sodium thiosulfate
- E. Sodium hydroxide

16. A pharmaceutical analyst of an analytical laboratory performs quantitative determination of silver nitrate by thiocyanatometry. What indicator is used in this case?

- A. Iron (III) ammonium sulphate
- B. Sodium eosinate
- C. Potassium chromate
- D. Phenolphthalein
- E. Starch

17. A pharmaceutical company produces concentrated extracts. Specify the concentration of ethanol in the extractant required for the production:

- A. 20-40%
- B. 90-96%
- C. 70-75%
- D. 50-60%
- E. 70-90%

18. 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?

- A. Liquid whistle, magnetostrictive source
- B. Dismembrator, electrical impulse plasmolyzer
- C. Disintegrator, liquid whistle
- D. Rotor-pulsation apparatus, dismembrator
- E. Centrifugal mixer with rotating housing

19. 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:

- A.** Homogenization
B. Preparation of the base
C. Standardization
D. Pre-packing
E. Packaging
- 20.** 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?
- A.** Methylene chloride, ethylene chloride
B. Freon (CFCs)
C. Propane, butane, isobutane
D. Vinyl and methyl chloride
E. Carbon dioxide
- 21.** 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 material in compliance with the State Pharmacopoeia?
- A.** 1 part
B. 0,5 part
C. 10 parts
D. 5 parts
E. 3 parts
- 22.** An analytical laboratory received calcium gluconate for analysis. What method is used for its quantification?
- A.** Chelatometry
B. Bromatometry
C. Iodometry
D. Mercurimetric determination
E. Nitritometric determination
- 23.** A chemist of the production unit for ampouled medicinal preparations analyzes injectable solution of calcium chloride. According to the requirements, the analyzed solution should be colorless. To meet this requirement, the analyte should be compared to:
- A.** Water
B. Alcohol
C. Acetone
D. Hydrochloric acid
E. Chloroform
- 24.** What drug is used as the specific antidote in case of intoxication with iron preparations?
- A.** Deferoxamine
B. Protamine sulfate
C. Bemegride
D. Atropine
E. Penicillamine
- 25.** Specify the type of capsules which are used for dispensing camphor powders:
- A.** Parchment
B. Cellophane
C. Paraffin
D. Waxed
E. Common paper
- 26.** A pharmacy received a formulation for an extemporaneously compounded medication. Specify the document that is used to set the price for such medication:
- A.** Retail price list for drugs
B. Inventory report
C. Certificate of quality
D. Cash receipt voucher
E. Certificate of analysis
- 27.** A pharmacist has prepared a suspension ointment. Specify the substance used for this type of ointments:
- A.** Zinc oxide
B. Protargolum
C. Menthol
D. Ichthyol
E. Potassium iodide
- 28.** Ergot (*Secale cornutum*) is used as an uterotonic agent in obstetric practice and for the treatment of cardiovascular diseases. The authenticity of the raw materials is proved by the content of:
- A.** Ergotoxine
B. Atropine
C. Hyoscyamine
D. Reserpine
E. Ajmaline
- 29.** Among the given principles of

market segmentation select a principle that is used in the study of drug market most often:

- A. Demographic
- B. Behavioral
- C. Psychological
- D. Psychographic
- E. Socio-economic

30. Personnel records refer to the following type of documents:

- A. Managerial
- B. Pharmaceutical
- C. Scientific
- D. Directive
- E. Reference information

31. A pharmacy received a formulation for eye drops containing 1% solution of pilocarpine hydrochloride. What substance should be used to ensure that the resultant solution is isotonic?

- A. Sodium chloride
- B. Boric acid
- C. Glucose
- D. Sodium nitrate
- E. Sodium sulfate

32. A pharmacist prepared 10 powders containing atropine sulfate in an amount of 0,00005 per dose. What trituration had been used?

- A. 1:100
- B. 1:10
- C. 1:1000
- D. 1:50
- E. 1:20

33. Which of the following anti-hypertensive drugs has potassium-sparing effect?

- A. Triamterene
- B. Furosemide
- C. Prazosin
- D. Metoprolol
- E. Diltiazem

34. Immunochemical test for detection of opiates in urine is carried out on polystyrene plates with the use of horseradish peroxidase as a label. This method is classified as:

- A. Heterogeneous immunoassay
- B. Homogeneous immunoassay
- C. Homogeneous immunofluorescence
- D. Heterogeneous immunofluorescence
- E. Heterogeneous radioimmunoassay

35. When developing the system of marketing communications, a company should consider the characteristics of each tool used for market promotion of a drug. Which of the following characteristics is typical for advertising?

- A. Depersonalization (non-personal communication)
- B. Non-mass communication
- C. Two-way communication
- D. All answers are correct
- E. There is no correct answer

36. Quantitative determination of pyridine derivatives is performed by acidimetry in nonaqueous medium. What titrant is used for this purpose?

- A. Perchlorate acid
- B. Sulfuric acid
- C. Nitric acid
- D. Sodium hydroxide
- E. Sodium thiosulfate

37. What antiprotozoal agent can be recommended to a female patient with trichomoniasis?

- A. Metronidazole
- B. Primaquine
- C. Chloridinum
- D. Solusurminum
- E. Chiniofonum

38. A patient has a history of chronic bronchitis. Recommend him an expectorant which can be purchased at a pharmacy to facilitate the expectoration of thick and viscous mucus:

- A. Ambroxol
- B. Falimint
- C. Glauvent
- D. Libexin
- E. Salbutamol

39. What drug from the group of cardiac glycosides can be used as an alternative for strophanthine if it is not available at a pharmacy?

- A. Corglycon
- B. Isolanidum
- C. Digitoxin
- D. Adonisidum
- E. Celanidum

40. A pharmacy received the following formulation:

*Rp.: Xeroformii Picis Liquidae Betulae ana 10,0
Olei Ricini 100,0
M.D.S. For wound anointing.*

Specify the dosage form:

- A. Liniment
- B. Hydrophilic ointment
- C. Paste
- D. Combined ointment
- E. Solution

41. What is the most common symptom of atropine intoxication?

- A. Mydriatic pupils with no light response
- B. Myotic pupils with no light response
- C. Hyperhidrosis
- D. Bradycardia
- E. Reduction of intraocular pressure

42. In order to detect the presence of thiosulfate ions a pharmaceutical analyst added the excess reagent. The resulting reaction produced a white precipitate which was slowly turning yellow, then brown, and black. What solution was added?

- A. Silver nitrate
- B. Barium chloride
- C. Ammonium oxalate
- D. Lead (II) acetate
- E. Diphenylamine

43. Quantitative analysis of boric acid can be performed by alkalimetric titration in the presence of:

- A. Mannitol
- B. Ethyl alcohol
- C. Ammonia buffer
- D. Mercury (II) acetate
- E. Nitric acid

44. A customer came to a pharmacy and presented the prescription for Tramadol tablets. For how long such a prescription must be kept at a pharmacy?

- A. 5 years, exclusive of the current year
- B. 1 year, exclusive of the current year
- C. 6 months, exclusive of the current year
- D. 10 years, exclusive of the current year
- E. 01 month, exclusive of the current year

45. A 6-year-old child with pneumonia had been administered an antibiotic. After treatment the child lost the hearing. What group of antibiotics might have caused this complication?

- A. Aminoglycosides
- B. Cephalosporins
- C. Macrolides
- D. Natural penicillins
- E. Semi-synthetic penicillins

46. Suppositories are prepared by various methods such as rolling, pouring, pressing. What base is used in the pouring method?

- A. Butyrolum
- B. Paraffin
- C. Cocoa butter
- D. Vaseline
- E. Coriander oil

47. Select the optimal antibacterial drug for the treatment of mycoplasma pneumonia:

- A. Rovamycin
- B. Gentamicin
- C. Penicillin
- D. Ampicillin
- E. Amoxiclav

48. Quantitative determination of pesticides in organic extracts after the isolation from the biological material can be done by various methods. What method of quantitative analysis of chlorophos is based on measuring the peak height parameter?

- A. Gas-liquid chromatography
- B. Thin-layer chromatography
- C. Photometry
- D. Argentometry
- E. Biochemical method

49. 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?

- A. 20
- B. 10
- C. 5
- D. 50
- E. 30

50. A pharmacy received 10 kg of hawthorn tincture which was packaged in 80 ml bottles. This operation should be recorded in the following document:

- A. Journal of laboratory and pre-packing operations
- B. Receipt for the ordered medication
- C. Consolidated register
- D. Cashbook
- E. Formulation journal

51. Employees of a pharmacy receive hourly rate wage and bonuses based on individual performance. What document is issued when calculating the payroll advance?

- A. Payroll record
- B. Inventory report
- C. Invoice
- D. Cash receipt voucher
- E. Cash payment voucher

52. Help a medical student to select an adrenergic drug for the treatment of anaphylactic shock:

- A. Epinephrine hydrochloride
- B. Clonidine
- C. Galazolin
- D. Fenoterolum
- E. Isadrinum

53. A 5-year-old child had accidentally drunk a bottle of eye drops. After 30 minutes the child developed

shortness of breath, difficult swallowing, voice hoarseness, dilated pupils, hyperthermia. Which of the drugs might have induced the described manifestations?

- A. Atropine
- B. Adrenaline
- C. Mesatonum
- D. Pilocarpine
- E. Novocaine

54. A patient purchased peppermint leaves at a pharmacy. What recommendations on infusing this herbal raw material must be given by the pharmacist?

- A. The infusion is to be prepared in a tightly closed vessel
- B. The infusion is to be prepared on an open fire
- C. The infusion is to be prepared at room temperature
- D. The extract is to be immediately filtered after infusing
- E. The extract is to be artificially cooled 15 minutes after infusing

55. It is required to prepare 50 g of zinc ointment for a patient. What amount of zinc and vaseline must be weighed out by a pharmacist?

- A. 5,0 and 45,0 g
- B. 10,0 and 40,0 g
- C. 2,5 and 40,0 g
- D. 1,0 and 49,0 g
- E. 0,5 and 49,5 g

56. 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:

- A. Addition of preservatives
- B. Dry heat sterilization
- C. Radiation sterilization
- D. Pressure steam sterilization
- E. UV light sterilization

57. A patient had been given an injection of 0,25% novocaine solution for the purpose of anaesthetization. Suddenly the patient developed red

spots, intense sweating, tachycardia, bronchospasm, edema of nasal mucosa. What is the cause of this complication?

- A. Immediate allergy
- B. Delayed allergy
- C. Local irritation
- D. Tachyphylaxis
- E. Withdrawal syndrome

58. What is the mechanism of action of diclofenac sodium?

- A. It blocks cyclooxygenase
- B. It activates the synthesis of phosphodiesterase
- C. It inhibits cholinesterase
- D. It activates adenylate cyclase
- E. It inhibits phosphodiesterase

59. In order to identify deoxycorticosterone acetate a pharmaceutical analyst performed a steroid cycle reaction which produced cherry-red color and green fluorescence. What reagent was added?

- A. Concentrated sulfuric acid
- B. Iodine solution
- C. Iron (III) chloride solution
- D. Chloroform
- E. Potassium hydroxide solution

60. When investigating the case of drug intoxication, the expert commission should find out, whether intoxication had been caused by opium or omnopon. For this purpose it is required to conduct an additional test for:

- A. Meconic acid and meconin
- B. Morphine
- C. Papaverine
- D. Thebaine
- E. Codeine

61. Within an accounting period a pharmacy has been providing the population with the finished medications. What business transaction will have an effect on increasing inventory of the pharmacy?

- A. Arrivals from the pharmaceutical warehouse
- B. Markdown according to the pre-packing journal
- C. Write-off of goods
- D. Write-off of low-value inventory
- E. Salary accounting

62. Which of the following non-steroid anti-inflammatory agents has the least harmful effect on the mucosa of the gastrointestinal tract?

- A. Nimesulide
- B. Diclofenac
- C. Indomethacin
- D. Piroxicam
- E. Acetylsalicylic acid

63. A manufacturing enterprise plans to retail a new drug through the corporate network of pharmacies. What strategy of drug distribution will be used?

- A. Direct
- B. Multi-echelon
- C. Flexible
- D. Horizontal integration
- E. Vertical integration

64. When preparing an ointment with castor oil and vaseline a pharmacist failed to obtain a homogeneous system. What is the most likely cause of incompatibility between these components?

- A. Immiscibility of the ingredients
- B. Limited solubility
- C. Release of water of crystallization
- D. Coagulation
- E. Adsorption

65. In order to identify the toxic substance which was extracted from the acidic aqueous extract by an organic solvent, a toxicologist performed a murexide test which resulted in development of pink coloration. This indicates presence of the following substance in the sample:

- A. Barbamyl
- B. Morphine
- C. Strychnine
- D. Cocaine
- E. Atropine

66. Woolly foxglove is used as raw material for the production of the following drug:

- A. Lantosidum
- B. Corglycon
- C. Digitoxin
- D. Adonizid
- E. Erysimosidum

67. A 60-year-old female patient has a history of essential hypertension (stage II), ischemic heart disease, bronchial asthma. After the correction of pharmacotherapy, a patient experienced an attack of bronchospasm, and an escalation of dyspnea. What drug had caused the complication?

- A. Propranolol
- B. Nifedipine
- C. Aminophylline
- D. Mucaltinum
- E. Salbutamol

68. A pharmaceutical analyst with a 6-year length of service is on a sick leave due to temporary disability. He is entitled to the sickness allowance in the amount of:

- A. 80% of average wage
- B. 50% of average wage
- C. 100% of average wage
- D. 70% of average wage
- E. 30% of average wage

69. Sage leaves procured for the production of essential oil should be dried at a temperature of:

- A. 25-30°C
- B. 50-60°C
- C. 100°C
- D. 60-70°C
- E. 70-80°C

70. Which of the following antibiotics can be identified by means of the maltol formation test?

- A. Streptomycin sulfate
- B. Doxycycline hydrochloride
- C. Amoxicillin
- D. Lincomycin hydrochloride
- E. Kanamycin monosulfate

71. What is the main mechanism of action that underlies the bactericidal effect of penicillin on the coccal flora?

- A. Disruption of synthesis of the microbial cell wall
- B. Inhibition of protein synthesis
- C. Damage to the cytoplasmic membrane permeability
- D. Activation of the immune system of the macroorganism
- E. Phagocytic activity of leukocytes

72. What is the drug of choice for the treatment of acute pyelonephritis in a pregnant woman in the I trimester?

- A. Amoxicillin
- B. Norfloxacin
- C. Biseptolum
- D. Gentamicin
- E. Chloramphenicol

73. What is the most suitable drug that can be recommended for the treatment of rhinitis accompanying an ARVI in a 7-month-old child?

- A. 0,9% warm water solution of NaCl
- B. Naphthyzin
- C. Galazolin
- D. Pinosol
- E. Boromentol ointment

74. What drug may cause the development of constipation in patients undergoing combined therapy for arterial hypertension?

- A. Verapamil
- B. Furosemide
- C. Trimetazidine
- D. Pananginum
- E. Acetylsalicylic acid in small doses

75. In a pharmaceutical company both American and Japanese management styles are used. Select a characteristic feature of the Japanese management style:

- A. Collective responsibility
- B. Individual decision-making process
- C. Fast evaluation and career advancement
- D. Clearly formalized management structure
- E. Short-term employment

76. Drug A is in the stage of market saturation. In order to push up intensive sales, management of the manufacturing company decided to use the following type of advertising:

- A. Aggressive
- B. Informational
- C. Personal sales
- D. Sales promotion
- E. Public relations

77. A person got poisoned with alcohols. What alcohol derivatives are used for the analysis by the method of gas-liquid chromatography?

- A. Alkyl nitrites
- B. Alkyl nitrates
- C. Alkyl sulfites
- D. Alkyl sulfates
- E. Alkyl acetates

78. A pharmaceutical analyst identifies the substance of potassium acetate. What reagent confirms the presence of potassium cation in the analyte?

- A. Tartaric acid
- B. Sodium hydroxide
- C. Potassium permanganate
- D. Iron (III) chloride
- E. Zinc oxide

79. A pharmaceutical analyst tests potassium bromide for magnesium and alkaline earth metals impurity. What solution is used for this purpose?

- A. Sodium edetate
- B. Potassium permanganate
- C. Hydrochloric acid
- D. Silver nitrate
- E. Sodium nitrite

80. A patient with a history of essential hypertension has been administered lisinopril. What is the mechanism of action of this drug?

sm of action of this drug?

- A. It inhibits ACE
- B. It inhibits alpha-adrenergic receptors
- C. It inhibits beta-adrenergic receptors
- D. It stimulates beta-adrenergic receptors
- E. It inhibits M-cholinergic receptors

81. A male patient has been administered an antiulcerant that blocks histamine receptors of the gastric mucosa. What drug is it?

- A. Famotidine
- B. Omeprazole
- C. Almagelum
- D. Atropine sulfate
- E. Pirenzepine

82. Stimulation of beta-cells of the pancreas causes the hypoglycemic effect of the following drug:

- A. Glibenclamide
- B. Prednisolone
- C. Adrenaline hydrochloride
- D. Retabolilum
- E. Heparin

83. A pharmacist prepared an ointment by the following formulation:

*Rp.: Tannini 0,2
Lanolini 3,0
Vaselini 10,0
M. ut f. ung.*

D.S. To anoint the affected skin areas.

What method of tannin incorporation was used?

- A. Water dissolution, emulsification with anhydrous lanolin
- B. Trituration with liquid petrolate in a mortar by Deryagin rule
- C. Dissolution in molten vaseline
- D. Trituration with an alcohol in a mortar, blending with the base
- E. Dissolution in liquid petrolate

84. Business transactions are displayed in the accounts. The entry in the account ledger that is made to record the incoming of economic resources is called:

- A. Debit
- B. Equity
- C. Credit
- D. Assets
- E. Liabilities

85. Within the matrix of Boston Consulting Group, a certain drug refers to a group of products called "milking cash cows". Specify the stage of the lifecycle of this drug:

- A. Maturity
- B. Introduction
- C. Decline
- D. Growth
- E. Withdrawal

86. An analytical laboratory has been commissioned to prove the presence of ethylenediamine in aminophylline. Which of the following reagents makes it possible to detect ethylenediamine?

- A. Copper (II) sulfate
- B. Sodium hydroxide
- C. Concentrated sulfuric acid
- D. Silver nitrate
- E. Barium chloride

87. A patient has glaucoma. Recommend him a drug of the M-cholinomimetic group:

- A. Pilocarpine hydrochloride
- B. Ephedrine hydrochloride
- C. Sulfacyl sodium
- D. Atropine sulfate
- E. Laevomycetin

88. Advise an internship doctor on why iron preparations should not be administered together with antacids:

- A. This causes malabsorption of iron
- B. This causes increased binding to blood proteins
- C. This prevents deposition of iron in the body
- D. This increases intoxication with iron preparations
- E. This accelerates elimination of iron preparations

89. A female patient with pneumonia has been administered doxycycline

hydrochloride. This drug relates to the following group of antibiotics:

- A. Tetracyclines
- B. Aminoglycosides
- C. Macrolides
- D. Cephalosporins
- E. Penicillins

90. A pharmacy received the goods according to the accompanying documentation. Who is responsible for keeping the record of medicines received by a business entity?

- A. Authorized representative
- B. Pharmacist of the pharmacy
- C. Materially responsible person
- D. Trustee
- E. Chief accountant

91. Under the SPh of Ukraine, one of the reactions for the detection of calcium cation presence in drugs is the reaction with:

- A. Glyoxal-hydroxyanil
- B. Hydroxyquinoline
- C. Hydroxylamine
- D. Alizarin
- E. Sulfuric acid

92. A patient with cholelithiasis should be administered the following drug for the dissolution of cholesterol gallstones:

- A. Ursodeoxycholic acid
- B. Gamma-aminobutyric acid
- C. Acetylsalicylic acid
- D. Citric acid
- E. Mefenamic acid

93. A patient with acute heart failure and cardiac glycoside intolerance was given an injection of dobutamine. What is the mechanism of its action?

- A. Stimulation of β_1 -adrenoceptors
- B. Stimulation of α_1 -adrenoceptors
- C. Block of K^+ -, Na^+ -ATPase
- D. Inhibition of phosphodiesterase
- E. Stimulation of M-cholinergic receptors

94. Which of the methods to fill ampoules with injectable solutions

makes it possible to protect capillaries from contamination with thick and viscous solutions?

- A. Syringe
- B. Vacuum
- C. Turbo vacuum
- D. Vapor condensation
- E. Squeezing-through

95. When setting up a joint-stock company the founders discussed the issues of financial liability. What is the liability of the board members in a joint-stock company?

- A. Limited to the value of their shares
- B. Limited to the double amount of deposits
- C. Limited to the contributions to the statutory fund and their property
- D. Limited to the amount of deposits
- E. Unlimited and solidary

96. In order to verify the purity of the essential oil, some ethanol was added into the test tube with peppermint oil. The mixture became turbid. This means that the peppermint oil contains the following impurity:

- A. Fatty oil
- B. Phenol
- C. Acetone
- D. Ethyl acetate
- E. Diethyl ether

97. 5% solution of methylcellulose is used as a stabilizer for preparing a suspension of the following drug substance:

- A. Terpene hydrate
- B. Magnesium oxide
- C. Starch
- D. Bismuth nitrate basic
- E. Zinc oxide

98. An analytical chemist of the quality control department of a pharmaceutical plant can prove the presence of the cation in the test substance with a solution of potassium:

- A. Pyroantimonate
- B. Chloride
- C. Ferrocyanide (III)
- D. Hydroxide
- E. Nitrate

99. Magnesium peroxide identification is performed by the reaction of perchromic acid formation. What color is produced as a result of this reaction?

- A. Blue
- B. Red
- C. Green
- D. Black
- E. Yellow

100. A forensic medicine laboratory received some biological material. It was to be tested for the presence of trichlorfon and dichlorvos. For their isolation a toxicologist infuses them with:

- A. Chloroform
- B. Water alkalized with ammonia solution
- C. Propanol acidified with oxalic acid
- D. Ethanol acidified with oxalic acid
- E. Water acidified with sulfuric acid

101. Pharmacies prepare injectable solutions. Which solution is prepared without any stabilizer?

- A. Sodium bicarbonate solution
- B. Sodium thiosulfate solution
- C. Solution of caffeine sodium benzoate
- D. Glucose solution
- E. Novocaine solution

102. Ammifurinum contains furocumarines. These biologically active substances are derived from:

- A. Fruits of large ammi
- B. Fruits of psoralea
- C. Fruits of common parsnip
- D. Fruits of toothpick ammi
- E. Rhizomes and roots of angelica

103. 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)?

- A. 100%
- B. 97%
- C. 80%
- D. 75%
- E. 50%

104. A pharmacy compounds suspensions. What substance can be used for preparing a suspension without adding the stabilizer?

- A. Magnesium oxide
- B. Camphor
- C. Sulfur
- D. Menthol
- E. Phenyl salicylate

105. All employees are entitled to annual leave. What is the duration of the additional leave for pharmacy employees with non-standard working hours?

- A. Seven calendar days
- B. The additional leave is not granted
- C. Ten calendar days
- D. Twenty calendar days
- E. Thirty calendar days

106. One of the packagings stored at the warehouse of finished products has a damaged label. It is known that the drug substance in this packaging relates to alkaloids. In course of group qualitative tests for alkaloids the drug substance reacted positively with murexide. Further identification of the drug substance should be limited to the following group of derivatives:

- A. Purine
- B. Quinoline
- C. Tropane
- D. Isoquinoline
- E. Indole

107. Industrial, labor and socio-economic relations between the head of a pharmaceutical company and the employees are regulated by:

- A. Collective agreement
- B. Employment agreement
- C. Corporate code
- D. Contract
- E. Statute

108. A pharmacy received the following formulation:

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:

- A. 0,27
- B. 2,7
- C. 0,25
- D. 0,26
- E. 0,30

109. Xenobiotics are metabolized in the body. The main metabolite of the acetic acid is:

- A. Acetaldehyde
- B. Methyl alcohol
- C. Isopentyl alcohol
- D. Formic acid
- E. Valeric acid

110. Under the SPhU, the pharmacopieal preparation "Aether anaestheticus" is not allowed to have peroxide impurity. What reagent should be used to detect peroxides?

- A. Solution of starch and potassium iodide
- B. Solution of starch and potassium tetraiodomercurate
- C. Solution of starch and potassium bromide
- D. Grade reagent
- E. Lugol's reagent

111. Arrangement of drugs in the retail space of a pharmacy can be characterized as either strong or weak. What arrangement of drugs is regarded as weak?

- A.** On the lower shelves
- B.** At the intersection of the ranks of shelves
- C.** The shelves on the right side as the buyers pass along
- D.** Cashier desk zone
- E.** Zones with a good frontal look

112. When calculating the personal income tax, the tax social privilege is taken into account. Its rate depends on a certain statutory amount. Specify this amount:

- A.** Minimum statutory wage
- B.** Cost of living for one person
- C.** Cost of living for incapacitated persons
- D.** Maximum payroll fund
- E.** Cost of living for children aged 6 to 18 years

113. Fatty oils containing unsaturated fatty acids are used for the prophylaxis of atherosclerosis. Specify the starting materials of herbal origin that contain fatty oil:

- A.** Pumpkin seed
- B.** Ispaghula seed
- C.** Chestnut seed
- D.** Parsnip fruits
- E.** Psoralea fruits

114. The phytochemical workshop of a pharmaceutical plant produces biogenic stimulators from different starting materials. Specify the biogenic stimulators of animal origin:

- A.** Vitreous body, placental suspension for injections, plasmolum, solcoseryl
- B.** Liquid aloe extract, aloe liniment, aloe juice, biossedum
- C.** Peloidinum, humisolum, torfotum, Fibs Rro injectionibus
- D.** Liquid aloe extract, aloe liniment, plasmolum
- E.** Peloidinum, humisolum, torfotum, plasmolum, solcoseryl

115. A pharmacy network received a batch of raw material without analysis protocol. It was identified as marshmallow root by the external characteristics. The reaction with 5% alkali liquor was positive. This indi-

cates the presence of:

- A.** Slimes
- B.** Gums
- C.** Starch
- D.** Pectins
- E.** Cellulose

116. A pharmaceutical analyst tests anhydrous glucose for purity according to the requirements of the SPhU. Inadmissible barium impurity can be detected by using the following acid:

- A.** Sulphuric
- B.** Hydrochloric
- C.** Acetic
- D.** Nitric
- E.** Perchloric

117. The chemical name 1-benzoyl-5-ethyl-5-phenyl-barbituric acid stands for the following substance relating to barbiturates:

- A.** Benzonal
- B.** Barbitol
- C.** Phenobarbital
- D.** Hexenal
- E.** Benzobamil

118. What herbal drug produced form alkaloid-containing raw materials can be recommended for neurasthenia, insomnia, menopausal disorders?

- A.** Novopassit
- B.** Ergotamine
- C.** Glaucine hydrochloride
- D.** Securinine nitrate
- E.** Vinblastine

119. A pharmacist prepares 3000 mL of valerian root infusion for a hospital department. The given amount of extract should be infused in a water bath for:

- A.** 25 minutes
- B.** 45 minutes
- C.** 15 minutes
- D.** 10 minutes
- E.** 30 minutes

120. A pharmacist has prepared a solution of menthol oil. Specify the dissolution temperature of the active substance:

- A. 40-50°C
- B. 60-70°C
- C. 30-40°C
- D. 70-80°C
- E. 20-30°C

121. Forensic toxicological analysis of a mineralizate revealed copper. For the initial detection of copper ions the following substance is used:

- A. Plumbum diethyldithiocarbamate
- B. Sodium diethyldithiocarbamate
- C. Dithizone
- D. Diphenylcarbazine
- E. Diphenylamine

122. A patient has been found to have pesticide intoxication. Biochemical (cholinesterase) test was positive. What pesticide is likely to have caused the intoxication?

- A. Dichlorvos
- B. DDT
- C. Hexachlorocyclohexane
- D. Heptachlor
- E. Ethyl mercury chloride

123. As a result of condensation of substituted malonic esters and urea the derivatives of the following substance are obtained:

- A. Pyrimidine
- B. Pyridazine
- C. Pyrazole
- D. Pyridine
- E. Pyrazine

124. Which of the following ophthalmic dosage forms is produced only industrially?

- A. Ophthalmic inserts
- B. Ophthalmic ointments
- C. Eye drops
- D. Eye washes
- E. Eye rinses

125. What medication should be used as an antidote to eliminate the respiratory depression caused by an overdose of a narcotic analgesic?

- A. Naloxone
- B. Cordiamine
- C. Aethimizolum
- D. Camphor
- E. Ammonia

126. Fenofibrate relates to the following pharmacological group:

- A. Hypolipidemics
- B. Fibrinolysis inhibitors
- C. Hypnotics
- D. Antihypertensives
- E. Indirect anticoagulants

127. Which of the following vaginal dosage forms relate to the officinal formula, that is, are prepared in a pharmacy?

- A. Pessaries
- B. Vaginal tablets
- C. Vaginal capsules
- D. Vaginal foams
- E. Vaginal tablets for preparing solutions and suspensions

128. The glidants aerosil or magnesium stearate together with talc are added to the excipients in hard gelatin capsules in order to facilitate the following property:

- A. Powder flowability
- B. Homogeneity
- C. Moisture regulation
- D. Homogeneous mixing
- E. Compactibility

129. A student has been prescribed a tonic. This may be the tincture of the following medicinal plant:

- A. Rhodiola rosea
- B. Common yarrow
- C. Java tea (orthosiphon aristatus)
- D. Purple foxglove
- E. Black locust

130. A 25-year-old female patient had been taking antibiotics for 7 days, the disease was complicated by the development of intestinal dysbiosis. This complication should be treated by the drugs of the following group:

- A. Probiotics
- B. Antispasmodics
- C. Choleric
- D. Antacids
- E. Adaptogens

131. Which group of adjuvants includes polyvinyl alcohol used under the SPhU?

- A. Prolongators
- B. Preservatives
- C. pH adjusters
- D. Antioxidants
- E. Isotonizing agents

132. Which of the following drugs should be used for prevention of bronchial asthma attacks?

- A. Cromolyn sodium
- B. Salbutamol
- C. Drotaverine
- D. Diphenhydramine hydrochloride
- E. Ambroxol

133. A pharmacist has to prepare a medication by the following formulation:

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:

- A. Mint water
- B. Sugar syrup
- C. Liquoris Ammonii anisatis
- D. Sodium hydrogen carbonate
- E. Sodium benzoate

134. A pharmacist prepares an ointment under aseptic conditions on the sterile ointment base, namely the composition of vaseline and lanoline at a ratio 6:4. The drug substance is incorporated by suspension type. Such technique of ointment preparation is typical for the following substance:

- A. Benzylpenicillin sodium salt
- B. Sodium chloride
- C. Thiamine chloride
- D. Pilocarpine hydrochloride
- E. Sodium sulfate

135. Under the chemico-toxicological classification, toxic compounds are grouped according to the method of their isolation from the biological material. What compound can be isolated by steam distillation?

- A. Chloral hydrate
- B. Atropine
- C. Arsenicum
- D. Analgene
- E. Diazepam

136. Toxic medicines are isolated from biological material at a certain pH level of the medium. What substance is extracted from acidic aqueous extracts?

- A. Caffeine
- B. Chlorpromazine
- C. Atropine
- D. Morphine
- E. Cocaine

137. What drug is indicated in case of taking an overdose of depolarizing muscle relaxants?

- A. Neostigmine methylsulfate
- B. Metoprolol
- C. Naloxone
- D. Magnesium sulfate
- E. Unithiol

138. A 20-year-old female patient has been administered bicillin for rheumatic fever prophylaxis. Specify the frequency of bicillin-5 administration:

- A. Once every 3 weeks
- B. Once per week
- C. Once in 3 days
- D. Once per month
- E. Once a day

139. A 65-year-old male patient complains of nausea, vomiting, lethargy, seeing yellow spots in front of his eyes. The patient takes dai-

ly 0,25 mg of digoxin, 100 mg of aspecardum, 50 mg of metoprolol. What pathological condition is this syndrome typical for?

- A. Glycoside intoxication
- B. Food poisoning
- C. Withdrawal syndrome
- D. Tachyphylaxis
- E. Hypersensitivity reaction

140. Vincamine alkaloid reduces blood pressure, has a pronounced sedation effect, as well as hemostatic and anti-inflammatory effect. What herb is the source of this alkaloid?

- A. Common periwinkle
- B. Thick-fruited pagoda tree
- C. Bluish larkspur
- D. Northern wolfsbane
- E. Yellow water-lily

141. The galenical preparations workshop produces belladonna tincture. Specify the required ratio for this dosage form:

- A. 1:10
- B. 1:5
- C. 1:20
- D. 1:2
- E. 1:1

142. Pharmaceutical plants produce ointments on various bases. Specify the ointment base having the most pronounced osmotic properties:

- A. Polyethylene oxide
- B. Silicon
- C. Vaseline, lanolin
- D. Methyl cellulose
- E. Hydrogenated fat

143. A patient with acute heart failure has been administered an adrenomimetic agent. What drug is it?

- A. Dobutamine
- B. Digoxin
- C. Corglycon
- D. Metoprolol
- E. Salbutamol

144. Oil liniments are produced with fatty oils used as a base. What kind of oil should be used by a pharmacist if it

was not specified in the formulation?

- A. Sunflower oil
- B. Petrolatum
- C. Cod-liver oil
- D. Sesame oil
- E. Eucalyptus oil

145. A pharmacy received a formula for an alcohol solution of methylene blue with unspecified alcohol concentration. In this case, a pharmacist must use ethyl alcohol of the following concentration:

- A. 60%
- B. 90%
- C. 70%
- D. 96%
- E. 40%

146. Production unit for ampouled medicinal preparations produces procaine hydrochloride solution. This solution is stabilized by adding:

- A. 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 amino-propylene glycol

147. Recommend a drug for the treatment of tachyarrhythmia episodes:

- A. Propranolol
- B. Adrenaline
- C. Atropine
- D. Caffeine sodium benzoate
- E. Dobutamine

148. A 35-year-old female customer came to a pharmacy to purchase a medicine for the prevention of influenza. Which of the following drugs can be recommended?

- A. Rimantadine
- B. Acyclovir
- C. Ribavirin
- D. Ganciclovir
- E. Lamivudine

149. Employees of a company can

be instructed to go on a business trip by the orders of the company's head. Specify the deadline for submission of an expense report after the employee's return from the trip:

- A. 3 days
- B. 4 days
- C. 5 days
- D. 6 days
- E. 2 days

150. A pharmaceutical analyst analyzes a dosage form containing zinc sulfate. What reagent enables him to confirm the presence of the zinc cation in the analyte?

- A. Sodium sulfide
- B. Ammonium chloride
- C. Potassium ferrocyanide
- D. Silver nitrate
- E. Sodium tetraphenylborate

151. Lily of the valley is widely regarded as a cardiac stimulant and sedative. During the raw material procurement, the following plant may occur in the harvested crop:

- A. Round-leaved pyrola
- B. Spring adonis
- C. Treacle-mustard (*Erysimum cheiranthoides*)
- D. *Viola tricolor*
- E. *Viola arvensis*

152. A pharmacist prepares an infusion at a ratio of 1:30. What herbal raw material will be used?

- A. Lily of the valley grass
- B. Marshmallow root
- C. Sage leaves
- D. Oak bark
- E. Shoots of Marsh Labrador tea

153. A pharmacist has prepared vaginal suppositories. Specify the form of these suppositories:

- A. Marbles
- B. Torpedo
- C. Cylinder
- D. Cone
- E. Sticks

154. Under the SPhU (appendix 2), leaves of ginkgo are standardized by the content of:

- A. Flavonoids
- B. Saponins
- C. Alkaloids
- D. Coumarins
- E. Chromones

155. A clinical pharmacist invited to a medical conference made a report on the antiviral drug acyclovir. What is its mechanism of action?

- A. It inhibits the synthesis of nucleic acids
- B. It blocks the synthesis of the cell wall
- C. It increases the permeability of the cell membrane
- D. It antagonizes with PABA
- E. It inhibits the synthesis of proteins

156. What kind of marketing is provided in case of negative demand for goods and services, that is, in a situation when the demand is absent in a substantial part of the potential market?

- A. Conversion
- B. Stimulating
- C. Remarketing
- D. Synchro marketing
- E. Demarketing

157. Prescriptions for the controlled drugs dispensed under the reimbursement program (except for the narcotic and psychotropic preparations in substance) are issued on the following prescription form:

- A. №1 in duplicate
- B. №1, single copy
- C. №1 and №3
- D. №3 in duplicate
- E. №3, single copy

158. In case of the planned closure of a pharmacy for repair works, technical re-equipment or other works, a business entity is obliged to give a written notice to the Territorial State Inspectorate for Quality Control of Medicines in advance, but not later

than:

- A. 5 days in advance
- B. 10 days in advance
- C. 7 days in advance
- D. 3 days in advance
- E. 12 days in advance

159. Pharmacy №7 is engaged in both sales and production. What operations **ARE NOT REGISTERED** in the journal of laboratory and prepacking works?

- A. Extemporaneous compounding of dosage forms
- B. Preparation of semi-finished products
- C. Preparation of concentrated solutions
- D. Preparation of commercially available medications
- E. Packaging of finished products in certain amounts

160. Specify a drug having an analeptic and psychostimulant effect:

- A. Caffeine sodium benzoate
- B. Neostigmine methylsulfate
- C. Diazepam
- D. Corglycon
- E. Diclofenac sodium

161. What medicines are used to eliminate bronchospasm?

- A. β -adrenergic agonists
- B. β -blockers
- C. α -adrenergic agonists
- D. Cholinesterase inhibitors
- E. M-cholinomimetics

162. Alkaloid glaucine has an anti-tussive effect that is stronger and longer if compared to that of codeine, and exhibits no narcotic side effects. What medicinal plant contains glaucine?

- A. Yellow hornpoppy
- B. Celandine
- C. Thermopsis lanceolata
- D. Datura
- E. Henbane bell (*Scopolia carniolica*)

163. Drug plant *Dioscorea nipponica* is the starting materials for

the production of Polysponinum drug which is used in the complex treatment of atherosclerosis. Specify the active compounds of dioscorea:

- A. Steroid saponins
- B. Alkaloids
- C. Essential oil
- D. Cardiac glycosides
- E. Triterpene saponins

164. A hypertensive patient had been administered a diuretic as a part of the combined therapy. The administered drug caused hypokalemia. Specify this drug:

- A. Hydrochlorothiazide
- B. Amiloride
- C. Spironolactone
- D. Allopurinol
- E. Triamterene

165. A pharmaceutical factory produces herbal juice from fresh raw material. What operation should be performed at the stage of juice purification?

- A. Heating followed by rapid cooling
- B. Sedimentation
- C. Adsorption
- D. Filtration
- E. Crystallization

166. Cash receipts and payments at a pharmacy are recorded in the cashbook. Which of the following cash transactions IS NOT REGARDED as a receipt transaction?

- A. Issuing funds to be accounted for
- B. Recognizing cash receipts from sales at a pharmacy
- C. Recognizing cash receipts from sales at pharmacy outlets and kiosks
- D. Return of unused disbursement funds
- E. Recognizing accrued salaries and advance payable

167. What system includes a set of legal rules that regulate the amounts, forms, methods and time limits for collecting taxes and tax-like charges that enable the state to perform its

functions?

- A. Tax
- B. Accounting
- C. Statistic
- D. Reporting
- E. Remuneration of labor

168. Phytochemical workshop of a factory manufactures pancreatin. What is the starting material for obtaining pancreatin?

- A. Pancreas of pigs or cattle
- B. Gastric mucosa of pigs
- C. Lungs of cattle
- D. Heart of cattle
- E. Egg white

169. In case of simultaneous use of metronidazole and oral anticoagulants derived from coumarin patients must be warned about:

- A. Potentiation of anticoagulants effect and the risk of bleeding
- B. Reduction of anticoagulants effect
- C. Potentiation of metronidazole effect
- D. Reduction of metronidazole effect
- E. Higher neurotoxicity

170. Specify the principle of the pharmacy accounting which complies with the following definition: "This principle provides for continuous following the adopted accounting policy. Any changes to the accounting policy must be well-grounded and fixed in the financial statements":

- A. Consistency
- B. Periodicity
- C. Expenses against revenues matching
- D. Full disclosure
- E. Going concern

171. At a maternity hospital a pregnant woman with weak uterine contractions has been administered oxytocin. This drug relates to the following pharmaceutical group:

- A. Pituitary hormone preparations
- B. Thyroid hormone preparations
- C. Anabolic steroids
- D. Mineral corticoids
- E. Glucocorticoids

172. What factor underlies the mechanism of the analgesic effect of morphine hydrochloride?

- A. Stimulation of opiate receptors
- B. Inhibition of histamine receptors
- C. Inhibition of phosphodiesterase
- D. Stimulation of adenylate cyclase
- E. Inhibition of cholinesterase

173. Analytical and control laboratory determines quality of fatty oils by using certain chemical indices. Specify the chemical index that is demonstrative of the fatty oil drying:

- A. Iodine absorption number
- B. Acid number
- C. Saponification number
- D. Ester number
- E. Peroxide number

174. The head of a pharmaceutical company "Azalea" applies different types of control. The control which starts with logging in to the system of organization before commencement of work and is exercised through rules, procedures, etc. refers to:

- A. Preliminary control
- B. Current control
- C. Final control
- D. Decentralized control
- E. Centralized control

175. A 30-year-old male patient diagnosed with acute osteomyelitis has been administered an antibiotic that is highly effective in penetrating the bone tissue. What drug has been chosen?

- A. Lincomycin
- B. Bicillin 3
- C. Penicillin
- D. Polymyxin-M
- E. Ampicillin

176. A pharmacist dispensed doxycycline to a patient and

recommended to abandon dairy products. What is the reason for such recommendation?

- A. Deceleration of the antibiotic absorption
- B. Increase in the antibiotic toxicity
- C. Increased risk of dysbiosis
- D. Disruption of digestion process
- E. Dairy products are not digested

177. Commercial and financial activity of a pharmacy involves using returnable tare. Which of the following containers are returned to the supplier?

- A. Metal cylinders
- B. Packaging materials
- C. Paper boxes
- D. Glass-stoppered bottles
- E. Glassware

178. A pharmacy has a set of documents which confirm the ownership of computer programs. Specify the balance sheet item that shows the pharmacy's property:

- A. Intangible assets
- B. Goods
- C. Low-value equipment
- D. Monetary assets
- E. Stock

179. In order to expand its range of activities, pharmacy №12 purchased some manufacturing equipment. What group of economic resources does the manufacturing equipment relate to?

- A. Fixed assets
- B. Goods
- C. Tara
- D. Tangible assets
- E. Incomplete capital investments

180. A pharmaceutical analyst added solutions of zirconyl nitrate and alizarin to a drug substance. The reaction produced red color turning into yellow. Specify the analyte:

- A. Sodium fluoride
- B. Sodium chloride
- C. Sodium bromide
- D. Sodium iodide
- E. Sodium thiosulfate

181. A pharmaceutical company studies the market situation in terms of a relationship between supply and demand, price level, stock of goods, etc. What is the company's actual object of study?

- A. Market behaviour
- B. Conditions for the market existence
- C. Market scope
- D. Market structure
- E. Market infrastructure

182. During a medical briefing a pharmacy intern was asked about the mechanism of antiatherosclerotic effect of clofibrate (fenofibrate). What is the correct answer?

- A. It lowers triglycerides
- B. It inhibits the cholesterol absorption
- C. It binds bile acids in the small intestine
- D. It has an antioxidant effect
- E. It inhibits the release of free fatty acids from adipose tissue

183. What style of behavior in conflict situations involves partial satisfaction of the interests of both parties by mutual concessions with due consideration of all pros and cons?

- A. Compromise
- B. Cooperation
- C. Dominance
- D. Competition
- E. Evasion

184. A pharmacy received a formulation for an extemporaneously compounded dosage form. The formula includes phenobarbital compounded with other drugs. Specify the required prescription form:

- A. Form № 1 in duplicate
- B. Form № 1
- C. Form № 2 in duplicate
- D. Form № 3
- E. Form № 2

185. A pharmacy has purchased a refrigerator and computer. These fixed assets are placed on the pharmacy's balance sheet at the following value:

- A. Historic
- B. Amortized
- C. Residual
- D. Market
- E. Liquidating

186. Galenic preparations are produced with the use of various extractants. What extractants require pressure as a prior condition for the extraction process?

- A. Liquefied gases
- B. Ethanol
- C. Methyl alcohol, acetone
- D. Vegetable oils
- E. Dichloroethane, chloroform

187. In the production of dry extracts the drying of purified extracts may not involve condensation of the the liquid extractions. What equipment should be used in this case?

- A. Spray drier
- B. Shelf drier
- C. Vacuum oven
- D. Thermostat
- E. Rotary one-flow drier

188. Buckthorn bark is used as a laxative. Specify the period for procurement of raw material of alder buckthorn bark:

- A. Spring, during the circulation of sap
- B. The period of full ripeness
- C. Winter
- D. Frondescence
- E. Autumn

189. A pharmacy received a prescription for phenobarbital tablets written out by a physician of the city clinic to an epileptic patient. Prescripti-

ons for this drug must be written out on the following prescription form:

- A. Form № 3 and № 1 in a single copy
- B. Form № 1 in duplicate
- C. Form № 3 in duplicate
- D. Form № 1 in a single copy
- E. Form № 2

190. A pharmaceutical analyst has to test the substance of iron sulfate heptahydrate for purity. What reagent should be used to detect zinc cation in the substance?

- A. Potassium ferrocyanide
- B. Silver nitrate
- C. Barium chloride
- D. Ammonium oxalate
- E. Sodium tetraphenylborate

191. A pharmaceutical analyst performs the identification of phthalylsulphathiazole (phthalazol). In compliance with the SPhU requirements, the substance is to be heated with resorcinol in the presence of sulfuric acid. The subsequent addition of sodium hydroxide and water results in:

- A. Intensive green fluorescence
- B. Abundant white precipitate
- C. Red-violet color
- D. Extensive yellow precipitate
- E. Intensive blue color

192. Under the SPhU, presence of ammonium salts in sodium tetraborate can be detected by method A by using a solution of the following substance:

- A. Alkaline potassium tetraiodomercurate
- B. Sodium tetraphenylborate
- C. Barium chloride
- D. Potassium ferrocyanide
- E. Silver nitrate

193. A pharmaceutical analyst performs the identification test of lidocaine hydrochloride under the SPhU. The identity is determined by the melting point of precipitate which is produced as a result of reaction with a solution of the following acid:

- A. Picric
- B. Acetic
- C. Thioglycolic
- D. Citric
- E. Phosphoric

194. A pharmacist with 10 years of service length is on a sick leave due to temporary disability. What allowance is he entitled to?

- A. 100% of the average wage
- B. 80% of the average wage
- C. 40% of the average wage
- D. 70% of the average wage
- E. 60% of the average wage

195. Pharmacy cashier is responsible for recording all credit and debit transactions. To enter into the books the cash received, a cashier should issue:

- A. Cash receipt voucher
- B. Cash payment voucher
- C. Goods receipt note
- D. Goods delivery note
- E. Receipt note

196. Organizational form of business in which a company does not produce goods or services itself but owns other companies' controlling stake and thereby supervises their activity is called:

- A. Holding
- B. Conglomerate
- C. Syndicate
- D. Cartel
- E. Trust

197. The head of a wholesale pharmaceutical company applies

modern theories in order to effectively motivate sales staff and determine the amount of remuneration. Specify one of the groups of motivation theories:

- A. Process
- B. Structural
- C. Primary
- D. Secondary
- E. System

198. Which of these drugs kept in the pharmacy stock relates to the group of laxatives?

- A. Bisacodyl
- B. Heparin
- C. Vicasol
- D. Atropine
- E. Morphine

199. A pharmacy received a batch of chemotherapeutic agents. Select an antiviral drug:

- A. Acyclovir
- B. Benzylpenicillin sodium salt
- C. Rifampicin
- D. Isoniazid
- E. Doxycycline

200. A 40-year-old patient has a history of bronchial asthma and heart rhythm disorders in form of bradyarrhythmia. Bronchospasm can be eliminated by the drugs of the following pharmacological group:

- A. *M*-cholinergic antagonists
- B. β -blockers
- C. *M*-cholinomimetics
- D. Cholinesterase inhibitors
- E. Muscle relaxants