

ANALYSIS. RESOURCES.

1. Herbal raw material should be collected in appropriate phytocenoses. Indicate where fern rhizomes should be collected:

A * Forest phytocenosis

B Steppe phytocenosis

C Wasteland phytocenosis

D Meadow plant community

E Plant communities of swamps and water-logged places

2. Herbal raw material should be collected in appropriate phytocenoses. Raw material of which medicinal plants can be collected at the banks of rivers, lakes and swamps?

A * Sedge cane (Calamus)

B Bearberry

C Knotweed

D Creeping thyme

E Pansy

3. Immortelle flowers are collected at the beginning of blossoming. Specify the phytocenosis for the medicinal plant material collection:

A * Steppe

B Forestry

C Meadow

D Wasteland

E Ponds

4. Indicate the herb listed in the Red Book of Ukraine, which area is limited by the highlands of the Ukrainian Carpathians:

A * Yellow gentian

B Spring adonis

C Killwort

D Lily-of-the-valley

E Hellebore

5. The medicinal plant material is collected in spring in the period of sap movement. Indicate this plant material:

A * Bark

B Flowers

C Buds

D Roots

E Fruits

6. Underground organs of medicinal plants are collected:

A * After ripening of seeds and disappearing of the aerial part

B In the phase of blossoming

C At the period of unripe fruit

D In the phase of bud formation

E In the phase of stem formation

7. Choose what should be done after collection of medicinal plant material:

A * Primary processing of the raw material

B Drying

C Packing

D Bringing to standard state

E Marking

8. After the collection a pharmacist throws away extraneous plant or other parts of the plant (stems if in leaves, leaves if in flowers, woody stems etc.) and plant materials damaged by insects and fungi. This type of analysis is called:

A * Primary processing of the raw material

B Preparing the raw material for realization

C Research of the raw material

D Qualitative testing of the raw material

E Assay of the raw material

9. A pharmacist must sort out medicinal plant material during the commodity research analysis under the following conditions:

A * The presence of poisonous plants

B Contamination with other parts of the plant material

C The presence of mineral admixtures

D The presence of organic admixtures

E Exceeding moisture of the plant material

10. A pharmacist should determine the taste of medicinal plant material organoleptically during the commodity research analysis:

A * At the end of Analysis

B At the beginning of Analysis

C After loss on drying determination in the raw material

D After extractable matters determination

E After ash determination in the raw material

11. What medicinal raw material should not be tasted during the commodity research analysis?

A * Raw material, which contains poisonous matters

B Raw material, which contains essential oils

- C* Raw material, which contains polysaccharides
- D* Raw material, which contains bitter glycosides
- E* Raw material, which contains vitamins

12. Determination of the level of affection by warehouse vermin should be carried out in laboratories at the formal acceptance of raw material, also yearly during its storage.

What is checked for this?

- A* * The presence of alive and dead vermin
- B* The presence of admissible vermin
- C* The presence of inadmissible vermin
- D* The presence of sand
- E* The presence of glass

13. The affection of the II-nd degree vermin on the medicinal plant material of peppermint herb was discovered on storage. Which measures must be taken?

- A* * Fumigation, factory processing
- B* Rejection as defective
- C* Cleaning and usage in a pharmacy
- D* Long-term heat treatment
- E* Unrestricted usage

14. What should be done to a party of whortleberry fruits if during the commodity research analysis the 1st degree of warehouse vermin affection in the plant material was detected?

- A* * The raw material can be admitted to the medical use
- B* The raw material can not be admitted to the medical use
- C* It's necessary to dry the raw material properly
- D* It's necessary to ventilate the raw material
- E* Sorting of the raw material must be carried out

15. Determination of the degree of warehouse vermin affection during the commodity research analysis is carried out in:

- A* * A separate sample of medicinal raw material taken from a united probe
- B* The middle sample
- C* The first analytic sample
- D* Any unit of a party
- E* The third analytic sample

16. Quality of MRM is characterized by a weight loss on drying, which is determined in:

- A* * An analytical sample
- B* A point sample
- C* A united sample

- D* A middle sample
- E* General sample

17. According to the commodity research analysis, content of ash and active substances should be determined:

- A* * In an analytical sample
- B* In an excerpt
- C* In a party
- D* In a middle sample
- E* Right after the general analysis of all the units in a party of MRM

18. At determining the moisture of raw materials at pharmaceutical enterprises the pharmacopoeian border figures of admissible moisture are checked, because:

- A* * High moisture causes mouldy of raw material and stimulates enzymatic processes
- B* The decrease of moisture favours better storage of raw material
- C* For extract production high moisture is needed
- D* High moisture favours quantitative determination of active substances
- E* The decrease of moisture favours identification of raw material

19. While packing and transporting the raw material is partly crumbled up, grinded. Overcrumbling spoils the appearance and reduces quality of raw material. Specify what is used for crumbled particles separation:

- A* * Sieves
- B* Filters
- C* Flasks
- D* Mortars
- E* Scalpels

20. Admixtures get to the MRM during collection, drying and primary processing. What is referred to organic admixtures?

- A* * Parts of the plant which are not the raw material
- B* Particles of glass
- C* Metallic objects
- D* Other similar plants
- E* Particles of soil

21. At determination of the plant material's quality the presence of mineral admixtures is established, which are:

- A* * Ground, sand, stones
- B* Herbs and flowers
- C* Flowers and roots
- D* Bark and roots
- E* Inflorescence and bark

22. Admixtures get to the MRM during collection, drying and primary processing.

What is referred to mineral admixtures?

A * Sand, ground, stones

B Metallic objects

C Other similar plants

D Admixtures of animal origin

E Other organs of the plant

23. One of numeric indices that characterize quality of MRM is the content of extracted matter, which is determined by:

A * Gravimetric method

B Titrimetry

C Spectrophotometry

D The biological standardization method

E Chromatography

24. The commodity research analysis demands determination of extracted matter. An extract for this analysis is prepared in correlation:

A * 1:50

B 1:10

C 1:25

D 1:100

E 1:20

25. After determining the accordance of the raw material quality to the requirements of normative-analytic documentation the quality control department gives out a document. Name the document:

A * The certificate of analysis

B Pharmacopoeian article

C Comission

D Requirement

E Standard

26. Pharmacist specifies the name of plant material, its mass, name of enterprise-producer, district of collection, date of collection, party number, according to the normative-analytic documentation, with the help of:

A * Marking the MRM

B Sorting the MRM

C Standardization of the MRM

D Collection of the MRM

E Packing the MRM

27. The HPLC method characteristic, which evaluates and identifies the substance, is:

A * Retention time

B R_f

C R_s

D Retention volume

E Eluent volume

28. The supplies of underground organs of wild-growing medicinal plants are determined by a method of:

A * Model specimens

B Method of projecting cover

C Record plot

D By sight

E By a geodesic method

29. During medicinal plant material collection it is necessary to follow the rule: don't eat, don't touch face and eyes with unwashed hands, right after the collection wash hands with soap. Especially in case of:

A * Herbal raw material containing poisonous compounds

B Herbal raw material containing tannins

C Herbal raw material containing saponins

D Herbal raw material containing essential oils

E Herbal raw material containing steroidal saponins

30. To decrease negative enzymes affection in plant material it is necessary to do:

A * Drying

B Extraction

C Sorting

D Macroscopic analysis

E Collection

31. Quality of herbal raw material depends on the collection terms. Underground parts – roots, rhizome, corms – should be collected:

A * In early spring or autumn

B During vegetation period

C Before blossoming

D During blossoming

E At the end blossoming

32. Phytochemical department of a pharmaceutical enterprise produces biogenic stimulators from different raw 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 pro injectionibus

D Liquid aloe extract, aloe liniment, plasmolum

E Peloidinum, humisolum, torfotum, plasmolum, solcoseryl

33. A certain type of herbal raw material is being harvested in spring during sap flow Specify this material:

A * Bark

B Flowers

C Roots

D Infructescences

E Buds

34. Crude drugs CANNOT be tasted if they contain:

A * Toxins

B Essentialoils

C Polysaccharides

D Bitterglycosides

E Vitamins

35. A certain type of herbal raw material is being collected in spring during the sap flow. Specify this material:

A * Bark

B Infructescences

C Buds

D Flowers

E Roots

36. Herbal raw material quality depends on the period when it was harvested. Subterranean organs - roots, rhizomes, subterranean tubers - should be harvested:

A * In early spring or in autumn

B At the end of the bloom

C During the bloom

D Before the bloom

E During the whole period of vegetation

37. Various admixtures are possible in the process of harvesting, drying, and primary processing of herbal raw material. Organic admixtures include:

A * Non-harvested parts of the same plant

B Metallic objects

C Sand

D Soil particles

E Glass fragments

38. Herbal raw material quality depends on the period when it was harvested. Subterranean organs - roots, rhizomes, subterranean tubers - should be harvested:

A * In early spring or autumn

B Before the bloom

C At the end of the bloom

D During the period of vegetation