**Answers should be sent to the e-mail address kafcnc@gmail.com. Make the rules work: send the answers in MS Office 97-2003 file, font: size 14, interval - 1.5, answer - no more than 7 pages.**

**The file name consists of the last name and the code of the group**

**As example: Al Moussawi Ahmed-5-th year-01group**

**CLASS**

**Topic: Development of recommendations on rational procurement of medicinal plants. The ways of medicinal raw material entry to the market**

**Control tasks**:

1. What are the main ways of obtaining medicinal plant material?
2. Why is collection from the wild important?
3. What are the challenges of wild collection?
4. Why can the concentration and composition of active substances vary in cultivated and wild growing plants?

TESTS

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

***A*** Raw material, which contains essential oils

***B*** Raw material, which contains poisonous matters

***C*** Raw material, which contains polysaccharides

***D*** Raw material, which contains bitter glycosides

***E*** Raw material, which contains vitamins

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

***A*** In a party

***B*** In an excerption

***C*** In an analytical sample

***D*** In a middle sample

***E*** Right after the general analysis of all the units in a party of MRM

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

***A*** The decrease of moisture favours better storage of raw material

***B*** High moisture causes mouldy of raw material and stimulates enzymatic processes

***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

4. 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

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

**A** Metallic objects

***B*** Particles of glass

***C*** Parts of the plant which are not the raw material

**D** Other similar plants

***E*** Particles of soil

6. 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

**PRACTICAL TASKS.**

Characterize the following medicinal plants according to the source of entry to the Ukrainian market. Divide medicinal plants into 4 groups according to the source of this MPM at the Ukrainian pharmaceutical market: wild, cultivated, tissue culture, imported. For each medicinal plant indicate the type of raw material, family name, chemical content, medicines and uses: Ginseng, Thyme, Strophanthus, Dog Rose, Ephedra, Hawthorn, Echinacea, Peppermint, Java Tea, St. John’s Wort, Tulip poppy, Bearberry, Nettle, Birch, Purple Foxglove, Cascara, Cornflower, Coriander, Alder Buckthorn, Catechu, Rauwolfia.

You have to fill the gaps in your ‘Resource science of medicinal plants. Copy-book’ on the topic: Lesson 4. The ways of medicinal raw material entry to the Ukrainian market., p. 22.