A. Kulichenko, T. Titiyevska

## THE LATIN LANGUAGE

MANUAL<br>for Independent Work<br>for the First-Year Students of the Pharmaceutical Faculties<br>with the English Medium of Instruction,<br>Speciality 226 "Pharmacy, Industrial Pharmacy"

# ZAPORIZHZHIA STATE MEDICAL UNIVERSITY DEPARTMENT OF FOREIGN LANGUAGES 

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Zaporizhzhia

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The manual is made up for the first-year students of the pharmaceutical faculties with the English medium of instruction, speciality 226 "Pharmacy, Industrial Pharmacy". The manual contains specialized design-structure tasks for independent work. The purpose of the manual is to revise the material learnt during Latin classes and to prepare for assessment and credit in the Latin language.

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## PREFACE

The manual on discipline "The Latin Language" is made up for the first-year students of the pharmaceutical faculties with the English medium of instruction, speciality 226 "Pharmacy, Industrial Pharmacy".

The manual contains 30 themes that correspond to practical classes within the $1^{\text {st }}$ semester (Section I. Latin Grammar. The Prescription) and the $2^{\text {nd }}$ semester (Section II. Latin Grammar. Special Terminology). The purpose of the manual is to revise the material learnt during Latin classes and to prepare for assessment and credit in the Latin language, the Unified State Qualification Examination (USQE), Stage 1 for the students majoring in "Pharmacy" that consists of the following parts: the "Krok-1" Integrated Test-Based Exam and the English Language Proficiency Test. Moreover, the manual has a preface and references.

Note that it is highly recommended to use the manual for independent work. For successful completion of each theme, students need to learn information that deals with specific grammar points.

## SECTION I. LATIN GRAMMAR. PRESCRIPTION

THEME 1.
LATIN ALPHABET. THE STRESS. THE LENGTH AND BREVITY OF A SYLLABLE

## The Latin Alphabet

Today pharmaceutical terminology uses 26 letters of the Latin alphabet.

| Spelling | Name | Pronunciation | Spelling | Name | Pronunciation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Aa | a | a | Nn | en | n |
| Bb | be | b | Oo | O | O |
| Cc | tse | ts; k | Pp | pe | p |
| Dd | de | d | Qq | ku | kv |
| Ee | e | e | Rr | er | r |
| Ff | ef | f | Ss | es | S |
| Gg | ge | g | Tt | te | t |
| Hh | ga | h | Uu | u | u |
| Ii | i | i | Vv | ve | v |
| Jj | iota | j | $\mathbf{X x}$ | eks | ks |
| Kk | ka | k | Yy | ipsilon | i |
| Ll | ei | 1 | $\mathbf{Z z}$ | zeta | Z |
| Mm | em | m |  |  |  |

Nota bene! or NB! (Remember well!) The Latin pharmaceutical terminology proper nouns, names of drugs and plants are written with the capital letter if they are expressed by nouns, e.g. Celsus, solutio Synoestroli (Synestrole solution), tinctura Valerianae aetherea (ethereal tincture of Valerian).

## The pronunciation of vowels

There are six vowels in Latin: $\mathbf{a}, \mathbf{e}, \mathbf{i}, \mathbf{o}, \mathbf{u}, \mathbf{y}$. The pronunciation of these sounds is similar to the pronunciation of corresponding English ones, though some peculiarities do exist: ána - equally; línea - line; ós - bone; intérnus - internal; inferior - inferior.

I, i - A vowel "i" is pronounced as "i" before and after consonants, e.g.: íta such, túnica - layer. "I" is pronounced as " j " at the beginning of a word or a syllable, before a vowel and between two vowels. In modern medical and pharmaceutical terminology the letter " j " is used in the above-mentioned cases, e.g.: májor - big, jejúnum - intestine, majális May*.
N.B.! There is no " j " in the borrowings of Greek origin because there was no "j" in the Greek language, e.g.: iódum - Iodine (G. iódes violet), Iodofórmium - iodoform, iódidum - iodide, Iodinólum iodinole).
Y, y - A vowel " $y$ " is pronounced as " i " and is used only in the borrowings of Greek origin, e.g.: pylórus - pylorus, myológia - myology.
*A twofold writing of such terms is possible: jejunum or ieiunum.

## The pronunciation of diphtongs

The combination of two vowels is called a "diphthong". There are the following diphthongs in Latin: ae, oe, au, eu, ou. Diphthongs ae and oe are pronounced as [e]: aegrótus - sick, cóena - meal.

If there are two dots above the second component of the diphthong ae or oe, such combination is not considered as a diphthong. Consequently, each letter should be read separately, e.g., áër - air, Áloë - Aloe, díploë - diploe.

$$
\begin{array}{ll}
\mathrm{au}-\mathrm{au}(\mathrm{av}) & \text { Aurum }- \text { gold } \\
\mathrm{eu}-\mathrm{eu}(\mathrm{ev}) & \text { pneumonía }- \text { inflammation of lungs } \\
\mathrm{ou}-\mathrm{u} & \text { croupósus }- \text { croupous }
\end{array}
$$

N.B! The endings -eus, -eum are not diphthongs, therefore they should be read separately, e.g.: scaphoideus - scaphoid.

## The pronunciation of consonants

Usually the rules of pronunciation of consonants are similar to English, but there are some peculiarities:

- like ts before vowels e $(\mathrm{ae}, \mathrm{oe})$ and $\mathrm{i}, \mathrm{y}, \mathrm{e} . \mathrm{g} .:$ cérebrum -
$\mathrm{C}, \mathrm{c} \quad$ cerebrum, medicína - medicine, caécus - blind, coéna - meal, cytus - cell; - like $\mathbf{k}$ in other cases, e.g.: cór - heart, cútis - skin, occipitális occipital;
G, g - is similar to English consonant g, e.g.: glándula - gland, grávis heavy;

| H, h | - is similar to English consonant h, e.g.: húmerus - humerus, hómo - human; |
| :---: | :---: |
| K, k | - is used only in borrowings, e.g.: skéleton (Greek) - skeleton, Kálium (Arabic) - Potassium, keratítis (Greek) - inflammation of cornea, kefír (Arabic) - kefir; or synthetically formed terms and names hyperglykaemia - increase of glucose amont in blood; |
| L, 1 | - is always a palatalized sound, unlike the English one, e.g.: lóngus - long; |
| S, s | - like s e.g.: sánus - healthy, cósta - rib; double ss is pronounced like $\mathbf{s}$ : fossa - pit, fissure - fissure; <br> - like $\mathbf{z}$ between two vowels, e.g.: nasális - nasal, and also between vowels and consonants $m$, $n$ : ménsis - month; |
| V, v | - like English consonant v, e.g.: vértebra - vertebra, víta - life; <br> - like kz between two vowels, e.g.: exémplar - example, pléxus - |
| X, x | plexus; <br> - like ks in other cases, e.g.: léx - law, fórnix - fornix; in words or morphemes borrowed from the Old Greek: xerox - dry; oxydum oxide; |
| Z, z | - like $\mathbf{z}$ is used in borrowings of Greek origin, e.g.: horizontális horizontal, zóna - belt, zygóma - zygomatic bone; - like ts in borrowings, e.g.: Zíncum - zinc (German), influénza flu (Italian); |
| W, w | - in borrowings, e.g.: unguéntum Wilkinsóni - Wilkinson's ointment, syndrómum Wílsoni - Wilson's syndrome. |

## The combinations of letters ngu, qu, su, ti

ngu - before vowels is pronounced as $n g v$, e.g.: sánguis - blood, unguéntum - ointment.
before consonants is pronounced as $n g u$, e.g.: ángulus - angle, língula - tongue.
qu - $\quad$ is pronounced as kv, e.g.: áqua - water, antíquus - ancient.
su - before vowels in the same syllable is pronounced as sv, e.g.: suávis pleasant, consuetúdo - habit. In other cases as su: suus - one's;
ti - before vowels is pronounced as tsi, e.g.: injéctio - injection, operátio - operation.

- before consonants is pronounced as ti, e.g.: tíbia - tibia; after the letters s, $\mathrm{t}, \mathrm{x}$ : combustion - burn; digestio - digestion; in terms with final elements: -dentia, -odontia, - odontium: adentia - absence of teeth.
N.B.! Medical and pharmaceutical terms of non-Latin origin are pronounced due to the rules of their original language, e.g.: French: dragée - dragee; cháncre chancre; English: shunt - shunt, bypass; German: Spátel - spatula, spreader; Stamm - strain, etc.


## The pronunciation of letter combinations ch, ph, th, rh, sch

Combinations of these letters are only used in words of Greek origin. They are pronounced exactly as in English.
ch - ch: chorda - chord, string; concha - concha;
rh - r: rhaphe - raphe, seam, suture; rheumatismus - rheumatism;
th - t: thorax - thorax; urethra - urethra;
ph - f: pharynx - pharynx; periphéricus - peripheral;
sch - sh: schizophrenia - complex psychopatological syndrome. Such a pronunciation should be considered as the phonetic professionalism that occurred under the influence of German, as there was no letter sh in Latin.

## Stress Rules

The Latin word has as many syllables, as vowels. The syllables are counted from the end of a word (from the right to the left), e. g:

$$
\begin{aligned}
& \text { phar-ma-ci- a } \\
& 4321 \\
& \text { ar-ti-cu-la-ti-o } \\
& 654321
\end{aligned}
$$

Only the second or third syllable can be stressed. The Latin language, unlike the English one, has long and short vowels. The place of stress depends on the length or brevity of the second syllable: if the second syllable is long, the stress remains on the second syllable; if it is short, the stress moves to the third syllable. In disyllabic words, the second syllable from the end is always stressed. For example: násus - nose.

The place of stress depends on the length or brevity of a syllable. The length or brevity of a vowel may be indicated in a dictionary: the length is denoted with a dash $\left(^{-}\right.$) above the vowel, the brevity is marked with a tick ( ${ }^{\sim}$ ), e. g.: $\bar{a}$, ă, $\bar{e}, ~ \breve{~ e ́ . ~}$

So, the syllable is long, if:

1. it contains a diphthong. For example: diaéta - diet;
2. the vowel is followed by two or more consonants. For example: linimentum - liniment, maxílla - the upper jaw.
3. the vowel is followed by $\mathbf{x}$ or $\mathbf{z}$. For example: refléxus - reflex, Orýza rice;
4. a syllable in a word has always been long. It is denoted with a dash ( ${ }^{-}$) above the vowel. For example: vesīca - bladder, Urtīca - nettle, cicātrix - cicatria.
5. the suffixes, containing a long vowel, are always long.

| Suffix with a specific ending | Part of speech | Example |
| :---: | :---: | :---: |
| -āl(is, e) | adjective | mentālis - mental |
| -ār(is, e) | adjective | maxillāris - maxillary |
| -āt(us, a, um) | adjective | foliātus - foliaceous |
| -īn(us, a, um) | adjective | palatīnus - palatine |
| -ōs(us, a, um) | adjective | cariōsus - carious |
| -īv(us, a, um) | adjective | incisīvus - incisive |
| -ōl(um) | noun | Phenōlum - phenol (in pharmaceutical names) |
| -ūr(a) | noun | fissūra - fissure |
| -ūt(us, a, um) | adjective | dilūtus - diluted |
| -ōma, ătis | noun | myōma - muscle tumour |
| -ītis, itīdis | noun | dermatititis inflammation of the skin |
| -ōsis, is | noun | leucocytōsis - excess of leucocytes in the blood |

## The syllable is short, if:

1. the vowel is followed by one more vowel. For example: líněa - line, crán̆um - skull, fácǐes - surface;
2. the vowel is followed by letter $\mathbf{h}$, digraphs ch, ph, th, rh. For example: éxtrăho - extract, stómachus - stomach, philósophus - philosopher;
3. there is a muta cum liquida, i.e the vowel is followed by combination $b$, d, g, p,t with r or 1 . For example: vértebra - vertebra, thermómetrum thermometer;
4. a syllable in a word has always been short. It is marked with a tick ( ${ }^{\wedge}$ ). For example: órgănum - organ.
5. the suffixes, containing a short vowel, are always short.

| Suffix with a specific ending | Part of speech | Example |
| :---: | :---: | :---: |
| $\begin{gathered} \text {-ŏl(us) } \\ \text {-ŏl(a) } \end{gathered}$ | noun | alveǒlus - alveole foveŏla - fossa |
| -ŭl(a) | noun | caruncŭla - sublingual caruncal |
| $\begin{gathered} -\mathrm{cul}(\mathrm{us}) \\ -\mathrm{u} \text { unl(um) } \end{gathered}$ | noun | saccŭlus - saccule <br> frenŭlum - frenulum |
| -ic(us, a, um) | adjective | masseterĭcus masseteric |
| -bĭl(is, e) | adjective | insanabĭlis - incurable |
| -id(um) | noun | sulfídum - sulfide |
| - $\mathrm{-r}(\mathrm{us}, \mathrm{a}, \mathrm{um})$ | adjective | frigǐdus - frigid, cold |

N.B.! Borrowings of Greek origin are stressed according to the rules of the Greek language, therefore some of these words do not fall under the aforementioned rules, e.g.: cryotherapía - cryotherapy, pharmacía - pharmacy; but: hystológia - histology.
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Place the stress, using the rules of the length and brevity:

ornamentum - ornament
ratio - intelligence, mind
Arachis - peanut
gangraena - gangrene, mortification
Xenophon - Xenophon
magister - teacher
amicitia - friendship
tenebrae - darkness
caelestis - heavens
Ptolemaeus - Ptolemaeus
insania - mental disease
thermometrum - thermometer
2. Place the stress, keep in mind long and short suffixes:
abdominalis - abdominal
caninus - canine
Stilboestrolum - stilboestrole
gingivitis - inflammation of gums
sulfurosus - sulfurous
fractura - fracture
squamula - small scale
nephrocarcinoma - cancer of kidney
tepidus - warm
papula - small papule (pimple)
endometriosis - abnormal growth of endometrial cells outside uterus
humilis - low
virosus - poisonous
frigidus - cold

## THEME 2.

## LATIN VERBS. GRAMMATICAL CATEGORIES. IMPERATIVE OF THE VERBS. VERBS IN PRESCRIPTIONS

Latin verbs possess the following properties:
Tense (Tempus) - there are six tenses in Latin.
We will study only the Present tense (Praesens).
Number (Numĕrus):
numěrus singulāris - singular;
numěrus plurālis - plural.
Person (Persona):
persōna prima - the $1^{\text {st }}$ person;
persōna secunda - the $2^{\text {nd }}$ person;
persōna tertia - the $3^{\text {rd }}$ person.
Mood (Modus):
modus indicatīvus - the Indicative Mood; denotes real actions
modus conjunctīvus - the Subjunctive Mood; represents actions that are
possible, doubtful, supposed or desired.
modus imperatīvus - the Imperative Mood; denotes a direct order infinitīvus - the Infinitive.
Voice (Genus):
genus actīvum - the Active Voice;
genus passīvum - the Passive Voice.

## The dictionary verb forms

Latin verbs are dispensed in a dictionary in four main forms. We will study only two main forms, namely:

- the $1^{\text {st }}$ person singular of the Present Indicative Active (praesens indicatīvi actīvi) with the personal ending -o;
- the indefinite verb form (infinitīvus praesentis actīvi) with the ending re
curo, āre - to cure
misceo, ēre - to mix
solvo, ĕre - to dissolve
linio, îre - to lubricate
We will use only the form of Infinitivus:
colāre - to filter
dāre - to give out
finīre - to finish
dividěre - to divide
solvĕre - to dissolve
miscēre - to mix
adhibēre - to use


## The identification of the verb conjugation and the verb stem

Latin verbs are divided into four conjugations (conjugation - conjugatio).
Verbs with the stem ending -ā are referred to the I conjugation. Verbs with the stem ending -ē belong to the II conjugation. Verbs with the stem ending in a consonant and in a vowel -ǔ belong to the III conjugation. Verbs with the ending -ī are referred to the IV conjugation.

The stem of the Present tense (praesens) is determined by means of cutting the suffix -re in the indefinite verb form for the verbs of the I, II, IV conjugations and the suffix -ĕre for the III conjugation:

| Conjugation | Infinitivus | Praesens stem | Praesens stem <br> ending |
| :---: | :---: | :---: | :---: |
| I | curāre | curā- | $\overline{\mathrm{a}}$ |
| II | miscēre | miscē- | $\overline{\mathrm{e}}$ |
| III | solvěre <br> diluěre | solv- <br> dilu- | consonant <br> -u |
| IV | lin̄̄re | lin̄̄- | $-\overline{1}$ |

N.B.! The verb recipio, ĕre - to take belongs to a small subgroup of the III conjucation verbs where a stem is not determined according to the general rule, but due to the $1^{\text {st }}$ person singular, Present Indicative Active. So, the stem is recipi-.

## The Imperative mood

The Imperative Present is used in the $2^{\text {nd }}$ person (singular and plural). The Imperative Mood for the verbs of the I, II, IV conjugations in the $2^{\text {nd }}$ person singular coincides with the verb stem of the Present tense. The Imperative Mood for the verbs of the III conjugation in the $2^{\text {nd }}$ person singular is formed by adding the ending -e to the verb stem. The $2^{\text {nd }}$ person plural of the Imperative Mood of the I, II, IV conjugations is formed adding the ending -te to the stem in the Present tense. In the III conjugation the combining vowel -1 is added between the stem and the ending.

| Conjugation | Infinitivus | Praesens <br> stem | Imperativus |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\mathbf{2}^{\text {nd }}$ person <br> plural |  |
| I | curāre | curā- | Cura! Cure! | Curāte! Cure! |
| II | miscēre | miscē- | Misce! Mix! | Miscēte! Mix! |
| III | solvĕre | solv- | Solve! <br> diluĕre <br> dilu- <br> Dissolve! <br> Dilute! | Solvīte! <br> Dissolve! <br> Diluǐte! |
| IV | lin̄̄re | lin̄̄- | Lini! Lubricate! | Lin̄̄te! <br> Lubricate! |

## Negative form of imperative mood

Negation in the indefinite verb form for the $2^{\text {nd }}$ person singular is expressed by the word noli + infinitivus: Noli nocēre! (Do not harm!). For the $2^{\text {nd }}$ person plural: nolīte + infinitīvus: Nolīte nocēre! (Do not harm!).
In prescriptions verbs are used in the Imperative mood:
Recǐpe: - Take:
Sterilĭsa! - Sterilize!
Misce. - Mix
Da. - Give out
Da tales doses numěro... - Give out the following doses...
Signa. - Sign. (Denote).
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Identify the stem and conjugation:

> intrāre (to enter)
> solvěre (to dissolve)
> venīre (to come)
> sentīre (to feel)
> adhib̄̄re (to use)
> tegĕre (to cover)
> addēre (to add)
> tussīre (to cough)
> nocēre (to do harm)

## 2. Form Imperative Present Active of the following verbs:

agitāre (to shake up)
dividěre (to divide)
docēre (to teach)
palpāre (to palpate)
studēre (to study)
vertěre (to turn)
captāre (to catch)
vivěre (to live)
vidēre (to see)

## THEME 3.

LATIN NOUNS. GRAMMATICAL CATEGORIES. LEXICAL FORMS. 5 DECLENSIONS OF NOUNS.

The nouns in pharmaceutical terminology are mainly based on two cases Nominativus singularis, pluralis and Genetivus singularis, pluralis. In dictionaries the noun is represented as such: mixtura, aef (mixture) that is:

1) the full form of Nominativus singularis - mixtura;
2) the ending of Genitivus singularis $-a e$;
3) the Gender - $f$ (feminine).

THE $1^{\text {st }}$ place in any pharmaceutical term is for the noun in its $1^{\text {st }}$ form (What? Who?)

The different cases are formed by appending certain case-endings to a fundamental part called the Stem. The Stem of any noun is determined by the full
form of the Genetivus singularis without Genetivus ending, characterizing the Declension.
E.g. the noun sirupus, im (syrup) has the Stem - sirup-.

Many nouns of the third declension have different forms in Nominativus and Genetivus Singularis, the altered part of the noun in the Genetive is shown in its dictionary form: cortex, icis $m$ (bark), solutio, onis $f$ (solution). The stem of the noun of the third declension is identified according to the dictionary form of the Genitive having omitted the ending -is: Cortex, icis $m$ - cortex (Nom. sing) corticis (Gen. Sing.) - cortic- (the Stem). Solutio,onis $f$ - solutio(Nom. sing.) solutionis (Gen.Sing.) - solution- (the Stem).

According to the 5 types of dictionary endings in Genetivus all the Latin nouns are divided into 5 groups called DECLENSIONS

5 DECLENSIONS OF NOUNS

| Declension | Genetivus ending | Gender | Nominativus ending | Examples |
| :---: | :---: | :---: | :---: | :---: |
| I | -ae | f | -a | herba, aef-herb |
| II | -i | m | -us,-er | nervus, im - nerv |
|  |  | n | -um, -on | oleum, in-oil |
| III | -is | $\mathrm{m}, \mathrm{f}, \mathrm{n}$ | different endings | cor, cordis $n$ - heart flos, floris m - flower |
| IV | -us | m | -us | spiritus, us $m$ alcohol |
|  |  | n | -u | cornu,us $n$ - horn |
| V | -ēi | f | -es | facies, eif - face |

Foundation of pharmaceutical terminology is the noun as a non-agreed modifier (disagreed attribute) - it is a noun in its Genetive Case (Of what? Of whom?) - E.g. tincture of valerian

NB!
To find words in the dictionary-tinctura, ae f ; Valerianae, ae f

1) The $1^{\text {st }}$ place according to the rule is for the noun with the question (WHAT?) "tincture" - tinctura (the $1^{\text {st }}$ dictionary form)
2) The $2^{\text {nd }}$ place for the noun with a question (OF WHAT?) the $2^{\text {nd }}$ dictionary form - "of valerian" - Valerianae.

Translation - tinctura Valerianae
Leaf of mint (Mentha, ae f)
Tincture of rose

Tincture of eucalyptus (Eucalyptus, if)
NB! In terms of disagreed atattribute, only the first noun can be declined. The second has always its Genetive form.
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Determine the declension and stem of the following nouns:

solutio, onis f - solutio
arbor, oris f - tree
status, us m - state
gutta, ae f - drop
folium, in - leaf
aqua, ae f - water
infans, ntis $m, f-$ child
Foeniculum, in - fennel
manus, us $f$ - hand
scabies, ei $f$ - scabies, itch
Saccharum, in - sugar
pulvis, eris m- powder
gloria, ae f - glory
lac, lactis n - milk
genu, us n - knee
2. Translate the following word combinations, keep in mind disagreed attribute:
drop of solution
leaf of tree
hand of child
water of fennel
powder of sugar (sugar powder)
sugar of milk (milk sugar)

## THEME 4. <br> NOUNS OF THE 1ST DECLENSION. DIRECT OBJECT. DISAGREED ATTRIBUTE. PREPOSITIONS.

The first declension includes nouns of the feminine gender which in Gen. Sing. end in -ae, in Nom. Sing. - in -a: herba, ae f - herb, tincture, ae $\mathrm{f}-$ vertebra.

Exceptions:
collega, ae $\mathbf{m}$ - colleague; diagnosta, ae $\mathbf{m}$ - diagnostitian, oculista, ae $\mathbf{m}$ an eye doctor, pharmacopola, ae $\mathbf{m}$ - pharmacist.

## Declension Pattern

| Case | Singularis | Pluralis |
| :---: | :---: | :---: |
| Nom. | tinctur-a | tinctur -ae |
| Gen. | tinctur -ae | tinctur $-\overline{\text { arum }}$ |
| Dat. | tinctur-ae | tinctur -i |
| Acc. | tinctur -am | tinctur -as |
| Abl. | tinctr- $-\overline{\mathrm{a}}$ | tinctur -is |

The Greek nouns of the $\mathbf{1}^{\text {st }}$ declension
The feminine nouns with the ending -e in Nom. , in Gen. sing. -es, are also referred to the $1^{\text {st }}$ declension, e.g.: Aloe, es $\mathrm{f}-$ aloe.

## Grammar structures of Latin nouns and verbs

1. Disagreed attribute is a noun in its Genetive singular or plural. This noun stays after the referred noun.

NOUN in its NOMINATIVE + NOUN in its GENETIVE (WHAT?)
(OF WHAT?)
E.g. drop of water - gutta(what?- Nominative sing) aquae (of what? - Genetive sing)gutta aquae
drops of water - guttae(what?-Nom.pl) aquae (of what? - Genetive sing) - guttae aquae

| Case | Singularis | Pluralis |
| :--- | :---: | :---: |
| Nom. | -a | -ae |
| Gen. | -ae | -arum |

2. Direct object is a noun in its Accusative singular or plural.

VERB in its IMPERATIVE + NOUN in its ACCUSATIVE
(Do!)
(Whom? What)
E.g. Sterilize water - Sterilisa (Imperative sing.) aquam (What? Whom?) - Sterilisa aquam.

Nd ! If we have + disagreed attribute we use the rule

VERB in its IMPERATIVE + NOUN in its ACCUSATIVE+ NOUN in its GEN.
(Do!) (whom?what) (of what?
Sterilize water of rose -- Sterilisa (Imperative sing.) aquam (what?whom?) Rosae (of what?of whom?)
To translate the verb we use the rules:

| Case | Singularis | Pluralis |
| :--- | :---: | :---: |
| Nom. | -a | -ae |
| Gen. | -ae | -arum |

3. Direct object is a noun in its Accusative singular or plural.

VERB in its IMPERATIVE + NOUN in its ACCUSATIVE
(Do!)
(Whom? What?)
E.g. Sterilize water - Sterilisa (Imperative sing.) aquam (what?whom?) - Sterilisa aquam.

Nd ! If we have + disagreed attribute we use the rule
VERB in its IMPERATIVE + NOUN in its ACCUSATIVE+ NOUN in its GEN.
(Do!) (whom? what?) (of what?)
Sterilize water of rose -- Sterilisa (Imperative sing.) aquam (what?whom?) Rosae(of what?of whom?\}
To translate the verb we use the rules:

## 1.For the verbs of the $\mathbf{1 , 2 , 4}$ conjugations: <br> Singular (Sing.) = stem <br> Plural (Plur.) = stem + -te

For example (exempli gratia =e.g)
Dāre (stem dā-) - $\mathrm{s}^{\text {st }}$ conj. - Da! (Sing) Dāte! (Pluralis) Give!

## 2.For the 3d conjugation verbs:

Singular(Sing.) $=$ stem $+\mathbf{e}$
Plural(Plur) $=$ stem $+\check{\mathbf{I}}+$-te
E.g.

Legěre (stem leg-) - 3d conj. -Lege! (Sing) Legite! (Plur) Read!
To translate the noun we use this table

| Case | Singularis | Pluralis |
| :--- | :---: | :---: |
| Acc. | -am | -as |

## The prepositions

Latin prepositions are divided into two groups. The first group is used with Accusativus while the second one - with Ablativus. Some of them are used both with Accusativus and Ablativus, depending on the meaning.

| Prepositions with the noun in the form <br> of Ablativus after them | Prepositions with the noun in the form <br> of Accusativus after them |
| :---: | :---: |
| De - about | Ante - пepeд |
| Cum - with | Supra - over |
| Ex, e from |  |
| Sine - without |  |
| Pro - for | Contra - against |
| Per - through, during |  |
| Ad - up to |  |
| Contra - against |  |

Case endings

| Case | Singularis | Pluralis |
| :--- | :---: | :---: |
| Acc. | -am | -as |
| Abl. | $-\overline{\mathrm{a}}$ | -is |

E.g. About pharmacy - de officinā (Abl.)

With a herb - cum herbā (Abl.)
Without drops - sine guttis (Abl.)
To the mixture (where? - Abl. - in mixturā)
To the mixture(where to? - Acc. - in mixturam)
Through tissue - per telam (Acc.)
NB! If we have disagreed attribute, memorize - THE NOUN IN ITS ACCUSATIVUS WILL NOT CHANGE ITS FORM AT ALL
E.g. With herb of liquorice - cum herbā Glycyrrhizae
2) Pone tabulettam Menthae in aquam Menthae. (Acc.) Put the tablet of mint into water of mint.

1) Pone tabulettam sub linguam. (Acc.) Put the tablet under the tongue.
2) Tabuletta sub lingua est. (Abl.) The tablet is under the tongue.

NB! If we have disagreed attribute, memorize - THE NOUN IN ITS GENETIVUS WILL NOT CHANGE ITS FORM AT ALL
E.g. With herb of liquorice - cum herbā Glycyrrhizae

References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Decline the following word combination:

drop of mixture
New words: drop - gutta, ae f
mixture - mixtura, ae f
bud of birch
New words: bud - gemma, ae f
birch - Betula, ae f
mass of pills
New words: mass - massa, ae f
pill - pilula, ae f
2. Translate the following word combinations:
with herb of lily-of-valley;
New words: herb - herba, ae f
lily-of-valley - Convallaria, ae f
without drops of mixture
New words: drop - gutta, ae f
under wax
New words: wax - cera, ae f
about buds of birch
through water of almonds
New words: water - aqua, ae f
almond - Amygdala, ae f
from tincture of valerian
New words: tincture - tinctura, ae f
Valerian - Valeriana, ae f
in ampules
New words: ampule - ampulla, ae f
without tablets of mint
New words: tablet - tabuletta, ae f
mint - Mentha, ae f
from tincture of valerian
New words: tincture - tinctura, ae f

## 3. Translate the following sentences:

a) into Latin:

Prepare mixture from tincture of lily-of-valley with water.
New words: water - aqua, ae f
lily-of-valley - Convallaria, ae f
Divide berries of magnolia wine on paper.
New words: magnolia wine - Schizandra, ae f
berry - bacca, ae f
paper - charta, ae f

Use tablets of mint without water.
New words: tablet - tabuletta, ae f
mint - Mentha, ae f
paper - charta, ae f
b) into English:

Filtrate aquam Amygdalarum per chartam.
New words: charta, ae f - paper
Sumite tabulettas Menthae sine aqua.
New words: tabuletta, ae f - tablet
Mentha, ae f - mint
Praeparate pilulas ex massa pilularum.
New words: pilula, ae f - pill
THEME 5.

## INDICATIVE AND CONJUNCTIVE OF VERBS. VERBS IN PRESCRIPTIONS.

## The present indicative active and passive

The Present Indicative is formed by adding the ending of the Active and Passive Voices to the stem of the Present tense.

Personal endings of the Present Indicative

| Person | Active Voice |  | Passive Voice |  |
| :---: | :---: | :---: | :---: | :---: |
|  | sing. | plur. | sing. | plur. |
| 1. | - - | -mus | -or | -mur |
| 2. | -s | -tis | -ris | -mini |
| 3. | -t | -nt | -tur | -ntur |

In the I, II, IV conjugations personal endings are added directly to the verb stems, but in the verbs belonging to the IV conjugation in the $3^{\text {rd }}$ person plural the combining vowel -u is added between a stem and a personal ending: lini-u-nt, lini-u-ntur.

In the III conjugation of the 3rd person singular the personal ending is added to a stem by means of the combining vowel -1. . In the $3{ }^{\text {rd }}$ person plural the combining vowel -u is added.
N.B.! As a rule, personal pronouns in Latin are not used with the verbs.

There are 3 rules of $3^{\text {rd }}$ personal forms. These rules are identical for ACTIVE and PASSIVE

1. For the verbs of the $\mathbf{1}^{\text {st }}, 2^{\text {nd }}$ conjugations

Singular Active Passive Singular Plural
stem of the verb + personal ending

The present indicative active

| Infinitive | stem | $3^{\text {rd }}$ person <br> singular | $\mathbf{3}^{\text {rd }}$ person plural |
| :--- | :--- | :--- | :--- |
| curāre | cura- | cura-t (he, she, it) <br> treats | cura-nt (they) treat |
| miscēre | misce- | misce-t (he, she, misce-nt(they) mix <br> it)mixes |  |

The present indicative passive

| Infinitive | stem | $\boldsymbol{3}^{\text {rd }}$ person singular | $\boldsymbol{3}^{\text {rd }}$ person plural |
| :--- | :---: | :---: | :---: |
| curāre | curā | curā-tur (he, she, it) is <br> treated | cura-ntur (they) are <br> treated |
| miscēre | miscē | miscē-tur (he, she, it) is <br> mixed | misce-ntur (they) are <br> mixed |

2. For the verbs of the $\mathbf{3}^{\text {rd }}$ conjugation

Active Passive
SINGULAR: Stem of the verb $+i+$ personal ending
PLURAL: Stem of the verb $+u+$ personal ending

The present indicative active

| Infinitive | stem | $\boldsymbol{3}^{\text {rd }}$ person singular | $\boldsymbol{3}^{\text {rd }}$ person plural |
| :--- | :---: | :---: | :---: |
| solvěre | solv- | solv-i-t(he,she it) <br> dissolves | solv-u-nt <br> (they)dissolve <br> diluĕre |
|  | dilu- | edilu-i-t(he,she it) dilute |  |

The present indicative passive

| Infinitive | stem | $\mathbf{3}^{\text {rd }}$ person singular | $\mathbf{3}^{\text {rd }}$ person plural |
| :--- | :---: | :---: | :---: |
| solvĕre | solv- | solv-1̆-tur(he,she it) <br> is dissolved <br> diluěre | solv-u-ntur(they) are <br> dissolved |
|  | dilu- | dilu-1̆-tur(he,she it) is <br> diluted | dilu-u-ntur (they) are <br> diluted |

3. For the verbs of the $4^{\text {th }}$ conjugation

Active Passive
SINGULAR: Stem of the verb + personal ending
PLURAL: Stem of the verb $+\mathbf{u}+$ personal ending

The present indicative active

| Infinitive | stem | $\mathbf{3}^{\text {rd }}$ person singular | $\mathbf{3}^{\text {rd }}$ person plural |
| :--- | :---: | :---: | :---: |
| linīre | lin̄̄- | lini-t (he, she it) lubricates | lini-u-nt (they) <br> lubricate |

The present indicative passive

| linio, īre | linī- | linī-tur (he, she it) is <br> lubricated | lini-u-ntur (they) are <br> lubricated |
| :--- | :---: | :---: | :---: |

## The subjunctive mood

The Present Subjunctive is formed by means of replacing the stem ending -a with -e in the verbs of the I conjugation. In the verbs belonging to the II, III, IV conjugations the Present Subjunctive is formed by adding the vowel -a and personal endings to the verb stems.

Personal endings of the subjunctive mood

| Person | Active Voice |  | Passive Voice |  |
| :---: | :---: | :---: | :---: | :---: |
|  | sing. | plur. | sing. | plur. |
| 1. | -m | -mus | -r | -mur |
| 2. | -s | -tis | -ris | -mini |
| 3. | -t | -nt | -tur | -ntur |

The present subjunctive active

| Infinitive | $\boldsymbol{3}^{\text {rd }}$ person singular | 3rd $^{\text {rd }}$ person plural |
| :--- | :---: | :---: |
| curo, āre | cure-t <br> would cure, <br> let (him, her, it) cure | cure-nt <br> would cure, <br> let (them) cure |
| misceo, ēre | misce-a-t <br> would mix, let mix | misce-a-nt <br> would mix, let mix |
| solvo, ěre <br> diluo, ěre | solv-a-t <br> would dissolve, let <br> dissolve <br> dilu-a-t | sol-a-nt <br> would dissolve, let <br> dissolve |
|  |  | dilu-a-nt dilute |


|  | would dilute, let dilute | would dilute, let dilute |
| :--- | :---: | :---: |
| linio, īre | lini-a-t |  |
| would lubricate, let |  |  |
| lubricate |  |  | | lini-a-nt |
| :---: |
| would lubricate, let |
| lubricate |

The present subjunctive passive

| Infinitive | $3^{\text {rd }}$ person singular | $3^{\text {rd }}$ person plural |
| :---: | :---: | :---: |
| curo, āre | curē-tur <br> (he, she, it) would be cured, let (him, her, it) be cured | cure-ntur (they) would be cured, let (them) be cured |
| misceo, ēre | misce-ā-tur would be mixed, let be mixed | misce-ā-ntur would be mixed, let be mixed |
| solvo, ěre diluo, ěre | solv-ā-tur would be dissolved, let be dissolved dilu-ā-tur would be diluted, let be diluted | solv-ā-ntur would be dissolved, let be dissolved dilu-ā-ntur would be diluted, let be diluted |
| linio, îre | lini-ā-tur would be lubricated, let be lubricated | lini-ā-ntur would be lubricated, let be lubricated |

The $3^{\text {rd }}$ person singular and plural praesens conjunctīvi passivi can be translated in the pharmaceutical terminology as the indefinite verb form, meaning an order, e.g.:
Misceātur. - Let it be mixed. To mix.
Detur. - Let it be given out. To give out.
Signētur. - Let it be administered. To administer.
Besides the imperative mood, one can use in prescriptions the verb forms of the subjunctive mood, meaning virtually the same:
Misceātur. Dētur. Signētur. - Let it be mixed! Let it be given out ! Let it be administered! (Mix! Dispense! Denote!)
Dentur tales doses numěro... - Let the following doses be be given out in number... (Give out such doses!)
Repetātur! - Let I tbe repeated! Repeat!
Sterilisētur! - Let be sterilized! Sterilize!

The verb sum, esse - to be The present indicative (Praesens indicatīvi)

| Singularis | Pluralis |
| :--- | :--- |
| 1. sum - I am | sumus - we are |
| 2. es - You are | estis - you are |
| 3. est - he, she, it is | sunt - they are |

The verb esse possesses functions of:
simple predicate;
link-verb.
Convallaria planta est. - Lily of valley is plant. References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Identify the stem and conjugation:

intrāre (to enter);
solvěre (to dissolve);
venīre (to come)
sentīre (to feel)
adhibēre (to use)
tegěre (to cover)
adděre (to add)
tussīre (to cough)
nocēre (to do harm)
2. Make the $3^{\text {rd }}$ person singular and plural of the Subjunctive Active and the Subjunctive Passive:
habēre (to have)
repetěre (to repeat)
miscēre (to mix)
solvěre (to dissolve)
biběre (to drink)
formāre (to form)
3. Translate the following word combinations:
a) into English: Misce, fiat pasta.

Tabuletta Menthae habētur.
Misceātur!

Pilŭlae in water solvuntur.
Pilŭla cum bromcamphorā formātur.
Massam pilularum vident.
b) into Latin: Water is sterilized.

He prepares paste of mint.
New words: pasta, ae f - paste
tabuleta, ae f - tablet
Mentha, ae f - mint
He drinks pill without water.
Pills are added to water.
New words: pilula, ae f - pill
massa, ae f - mass
aqua, ae f - water
Water of rose is used.
They use tablet without water.
New words: aqua, ae f - water
pilula, ae f - pill
tabuletta, ae f - tablet

## THEME 6.

THE PRESCRIPTION. GENERAL INFORMATION.

A prescription (derived from the Latin word "receptum") is a physician's order to prepare or dispense a specific treatment (usually medication) for an individual patient. It consists of the following parts:
I. Inscriptio - a seal which establishes the identity of the prescriber: office address and phone number.
II. Datum - the date of the prescription (a pharmacist is unlikely to fill a prescription that is very old).
III. Nomen aegroti - patient's name and age (it is particularly necessary to indicate the age when a patient is under 14 or over 60).
IV. Nomen medici - physician's name (when a physician prescribes medications for himself, instead of writing his name he can put "Pro auctore" (for the author) or "Pro me" (for me).
V. Invocatio - physician's order given to a pharmacist expressed by the word Recipe: (Rp: is a short form ). - Take. It is traditional to include the symbol Rx, which is the abbreviation for recipe (Latin, take though), when the prescription is written in English.
VI. Designatio materiarum: the list of ingredients or medications and their amount.
VII. Subscriptio: orders given to a pharmacist which explain how to prepare medications, their form and dose.

A prescription is called simple if only one medication is prescribed (formula remediorum simplex).

In Subscriptio of a simple prescription a physician writes: Da. Signa.
A prescription is called composite if two or more medications are prescribed (formula remediorum composita).
VIII. Signatura - the instruction given to a patient about the dose of a drug (an amount of medication taken at one time), and on how and when to take medication, and the duration of the therapy. This information is given in the state language or the language which a patient can understand.
IX. Nomen medici and sigillum personale. - a physician's own seal and signature.

We study only Latin part of prescription
E.g.:

Take (Rx): Tincture of lily-of-valley
Tincture of valerian equally 10 ml
Mentole 0,1
Mix.Give out.

Administer: 15 drops 3 times a day
Recipe: Tincturae Convallariae
Tincturae Valerianae ana 10 ml
Mentholi 0,1
Misce. Da.
Signa: 15 drops 3 times a day.

There are some rules of writing down Latin part of the prescription to be followed:
I. Latin part of any prescription begins with the verb in its Imperativus singularis

Recipe: (Take:) shortly - Rp.:
After "Recipe:" we must write names of remedies. Each name must be written according to the following rules -
$\checkmark$ With the new line
$\checkmark$ With initial capital letter
$\checkmark$ In Genetive singular or plural

## NB!

All the names of plants, remedies and chemical elements are written with initial capital letter (Oryza, Dimedrolum, Calcium). All the adjectives and names of anions in chemical compounds are written with initial small letter (e.g. Calcii chloridum- calcium chloride).

If a prescription line begins with SUPPOSITORIES or TABLETS we use Accusative form (Plural) - SUPPOSITORIA, TABULETTAS

For example:
Take: Tablets of dimedrole in number 20
Recipe: Tabulettas Dimedroli tumero 20

$$
* * *
$$

Take: Suppositories "Anusol" in number 10
Recipe: Suppositoria "Anusolum" numero 10
II. The dosage of drugs:

- Grams (for solid drugs) with the help of the decimal system in Arabian numerals:
1,0
200,0
1,5
0,05 etc
- Milliliters (for fluid drugs) - after quantity of milliliters - ml 1 ml 10 ml 100 ml
- Drops. The worg gutta(drop) is written in Accusative sing. Or plur. Number of drops is denoted by the Roman numbers after guttam or guttas:
1 drop - guttam I
5 drops - guttas V
If some medicaments have equal quantities their quantity is denoted with the word ana after the last medicament:
ana - equally, of each
Recipe: Tincturae Valerianae
Aquae Menthae ana 50 ml
Take: Tincture of valerian
Water of mint equally 50 ml
III. After names of drugs (with new line) doctor points what operations pharmacist must do - verbs in their Imperative or subjunctive are used.

| Imperative |  | Subjunctive |  |
| :--- | :--- | :--- | :--- |
| Mix. | Misce | Let it be mixed. | Misceātur |
| Give out. | Da | Let it be given out. | Dētur |
| Administer. | Signa | Let it be <br> administered | Signētur |
| Repeat. | Repete | Let it be repeated | Repetātur |
| Give out such <br> doses in number | Da tales doses <br> numero | Let such doses be <br> given out in number | Dentur tales doses <br> numero |
| Turn | Verte |  |  |

In prescriptions verb fio, fieri (to be formed, to get) is used:
Mix to get (Sing)... - Misce fiat...
Mix to get (plur)... - Misce fiant...
After fiat et fiant - nouns in their Nominative sing. or plur.
E.g Mix to get paste - Misce fiat pasta.

Mix to get pills in number 20 - Misce fiant pilulae numero 20.
Remember!

| Latin | English |
| :--- | :--- |
| Misce, fiat pasta | Mix to get paste. |
| Misce, fiat pulvis. | Mix to get powder. |
| Misce, fiat unguentum. | Mix to get ointment. |
| Misce, fiat globulus. | Mix to get globule. |
| Misce, fiat suppositorium. | Mix to get suppository |
| Misce, fiat linimentum. | Mix to liniment. |
| Misce, fiant pilulae. | Mix to get pills. |
| Misce, fiant species | Mix to get herbs(species) |
| Massae pilularum <br> quantum satis, ut fiant <br> pilulae numero... | Mass of pills enough to <br> get pills in number... |

IV. The last line (Administration - the directions to the patient) with Latin is translation of English ADMINISTER- «Signa» («Signetur:»). Only these words are written in Latin. The directions to the way of usage are written in the patient's native language.
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Translate into Latin the following terms:

berry of schizandra, drop of mixture
New words: berry - bacca, ae f
schizandre - Schizandra, ae f
drop - gutta, ae f
flour of rice, bud of birch
New words: flour - farina, ae f
rice - Oryza, ae f
bud - gemma, ae f
birch - betula, ae f
tincture of nettle, tablet of mint
New words: tincture - tinctura, ae f
nettle - Urtica, ae f
tablet - tabuletta, ae f
mint - Mentha, ae f
2. Translate into Latin the following sentence:

He prepares pills from the mass of pills.
New words: pill - pilula, ae f
mass - massa, ae f
Buds of birch are saved in paper.
New words: paper - charta, ae f
Prepare water from mint.
New words: water - aqua, ae f
mint - Mentha, ae f

## 3. Translate into Latin the following prescription:

Rx: Water of chamomile 200 ml (chamomile water)
Give out.
Administer.
Rx: Berries of schizandra 100,0

Give out.
Administer.
New words: water - aqua, ae f

> chamomile - Chamomilla, ae f

Rx: Flour of rice 200 ml (rice flour)
Give out.
Administer.
Rx: Buds of birch 100,0 (birch buds)
Give out.
Administer.
Rx: Tablets of mint in number 20 (Mint tablets)
Give out.
Administer.
Rx: Tincture of nettle (nettle tincture) 25 ml
Give out.
Administer.

## THEME 7.

## LATIN NOUNS OF THE 2ND DECLENSION. THE MASCULINE GENDER.

Nouns of masculine gender of the $2^{\text {nd }}$ declension - nouns with the ending -i in Gen. sing and in Nom. sing. endings -us or -er.

Dictionary form - sirupus, im
Sirupus - full form of Nominativus Singularis (What?)
$\mathbf{i}$ - Ending in Genetivus Singularis (Of what?)
m - gender
E.g.
morbus, i m - disease
succus, i m - juice
paediater, tri m - pediatrician;
cancer, cri m - cancer
Case endings

| CASUS | SINGULARIS | PLURALIS |
| :--- | :--- | :--- |
| NOM. | morb-us | morb-i |
| GEN. | morb-i | morb-orum |
| DAT. | morb-o | morb-is |
| ACC. | morb-um | morb-os |
| ABL. | morb-o | morb-is |

## Names of plants

Leonurus, i m - motherwort
Oxycoccus, i m - cranberry
Ricinus, i m - castor oil plant
Rubus idaeus, i m-raspberry
Thymus, i m - thyme
Myrtillus, i m - wortleberry

## Names of medicinal forms

sirupus,i m - syrup
bacillus, i m - stick
globulus, i m - globule
succus, i m-juice
Names of drug forms in prescriptions

| Latin | English |
| :---: | :---: |
| Recipe: Sirupi... | Rx: Syrup of... |
| Succi ... | Juice of |
| Bacillos... | Sticks... |
| Globulos... | Globules... |

Exceptions from the gender rule:
among the nouns of the $2^{\text {nd }}$ declension (ending -us) we have names of bushes and trees as feminine:
E.g. Prunus, if - plum

Amygdalus, if - almond (Tree); Amygdala, ae f-almond (fruit)
b) Some nouns of Greek origin:
E.g. Bolus, if-clay (a large pill)

Crystallus, if - crystal
virus, in - virus
These nouns are declined as the nouns of the $2^{\text {nd }}$ declension masculine. NB! For virus, in-neuter gender case endings and "Golden rule".

Names of trees and bushes
Amygdalus, if - almond
Alnus, if - alder
Citrus, if - lemon
Crataegus, if - hawthorn
Eucalyptus, if - eucalyptus
Juniperus, if - cade
Pinus, if - pine

Prunus, if - plum
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Decline the following word combination:

syrup of nettle
New words: syrup - sirupus, i m
nettle - Urtica, ae f
juice of eucalyptus
New words: juice - succus, i m
eucalyptus - Eucalyptus, if
juice of raspberry
New words: juice - succus, i m
raspberry - Rubus idaeus, i m

## 2. Translate the following word combinations:

with syrup of lily-of-valley
New words: syrup - sirupus, i m
lily-of-valley - Convallaria, ae f
without juice of thyme
New words: juice - succus, i m;
thyme - Thymus, i m
under stick
New word: stick - bacillus, i m
about juice of birch
New words: juice - succus, i m
Birch - Betula, ae f
through water of raspberry
New words: water - aqua, ae f
raspberry- Rubus idaeus, i m
from syrup of whortleberry
New words: syrup - sirupus, i m whortleberry - Myrtillus, i m
in eyes
New word: eye - oculus, i m
without juice of mint
New words: juice - succus, i m mint - Mentha, ae f
syrup of aloe for patients
New word: patient - aegrotus, im
Aloe - Aloe, es f

## 3. Translate the following sentences:

a) into Latin:

He prepares syrup from herb of lily-of-valley.
New words: herb - herba, ae f
lily-of-valley - Convallaria, ae f
Divide berries of cranberry on paper.
New words: cranberry - Oxycoccus, i m
berry - bacca, ae f $m$
paper - charta, ae f
Juice of mint is used without water.
New words: juice - succus, i m
mint - Mentha, ae f
water - aqua, ae f
b) into English:

Tincture of motherwort ad morbos cordis adhibetur.
New words: Leonurus, i m - motherwort
morbus, i m - disease
cor, cordis n - heart
Pharmaeuta sirupum ex baccis Oxycocci praeparat.
New words: phamaceuta, ae f - pharmacist
Oxycoccus, i m - cranberry
Sirupi plantarum in lagenis dantur.
New words: sirupus, i m - syrup
planta, ae f - plant
lagena, ae f - bottle

## 4. Translate the prescription:

Rx: Juice of sage 30 ml
Tincture of anise 20 ml
Syrup of sugar 10 ml
Mix.

Give out.
Administer
New word: Saccharum, in - sugar
Rx: Juice of cranberry 1 ml

Sugar 0,3
Mix to form a powder. Give out such doses in number 12 .
Administer.
New words: Saccharum, in - sugar pulvis, eris m - powder
Rx: Syrup of thyme 100 ml
Mix.

Administer.
New words: Thymus, in - thyme

THEME 8.
LATIN NOUNS OF THE 2ND DECLENSION. THE NEUTER GENDER.

These are nouns with ending -UM in Nom. Sing. and ending -I in Gen sing. E.g.
infūsum, in-infusion;
remedium, in-remedy, medicine
unguentum, in-ointment
suppositorium, in - suppository
GOLDEN rule of neuter gender nouns and adjectives:
All the nouns of neutrum have the same forms in Nom.and Acc. In Plural they always have ending -a in these cases. The same rule occurs in Ukranian. Compare:
Ukranian
VILLAGE - (n) СЕЛО (sing)
VILLAGES - CEJA (plur)
Latin
INFUSION -(n) INFUSUM (sing)
INFUSIONS - INFUSA (plur)
FOLIUM, I N - leaf
Case endings

| CASUS | SINGULARIS | PLURALIS |
| :--- | :--- | :--- |
| NOM. | foli-um | foli-a |
| GEN. | foli-i | foli-orum |
| DAT. | foli-o | foli-is |
| ACC. | foli-um | foli-a |
| ABL. | foli-o | foli-is |

## NOMENCLATURE NAMES of OILS

Oleum Ricini - castor oil
Oleum Terebinthinae - terpinthine oil, Oil of terpinthine
NB!In the names of stone-fruit oils and waters THE NAMES OF FRUIT ARE USEDIN PLURALL(gen)
oleum Amygdalarum - almond oil (oil of almonds)
oleum Olivarum - olive oil (oil of olives)
oleum Persicorum - peach oil (oiol of peaches)

## Medicinal forms and other pharmaceutical names

amylum, in - starch
decoctum, in-decoction
emulsum, in-emulsion
extractum, i n - extract
emplastrum, i n - plaster
folium, in - leaf
infusum, in - infusion
linimentum, in-liniment
oleum, in - oil
saccharum, in - sugar
unguentum, in-ointment; unguent
suppositorium, in - suppository

## Names of medicinal plants

Absinthium, in-wormwood; absinth
Chelidonium, in - celandine; bloodworm
Equisetum, in - horse-tail; shave-grass
Foeniculum, i n - fennel
Hypericum, i n - St. John's wort
Millefolium, in-milfoil
Polygonum, i n - water pepper
Rheum, in - rhubarb
Names of extracts
liquid (fluid) extract - extractum... fluidum
(Gen. Sing. Extracti... fluidi)
thickened (dense) extract - extractum... spissum
(Gen. Sing. extracti ...spissi)
dry extract - extractum... siccum
(Gen. Sing. extracti ...sicci)

Names of drug forms in prescriptions

| Latin | English |
| :---: | :---: |
| Recipe: Infusi... | Rx: Infusion... |
| Infusi foliorum... | Leaves (foliage) infusion... |
| Infusi herbae... | Herb infusion... |
| Infusi florum... | Flower infusion... |
| Decocti ... | Decoction... |
| Decocti radicis... | Root decoction ... |
| Decocti corticis... | Bark decoction... |
| Decocti fructuum... | Fruit decoction... |
| Decocti seminum... | Seed decoction ... |
| Extracti ... sicci | Dry extract of... |
| Extracti ... fluidi | Fluid extract of... |
| Extracti ... spissi | Thick extract of... |
| Sirupi ... | Syrup... |
| Linimenti... | Liniment... |
| Unguenti... | Ointment... |
| Unguenti ... ophthalmici | Ophthalmologic ointment of... |
| Emplastri... | Plaster of... |
| Emplastri ... simplicis | Simple plaster of... |
| Emplastri ... compositi | Composite plaster of... |

Note: Sign ... - is omitted name of medicine, plant or chemical element. References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Decline the following word combination:

leaf of sunflower
New words: leaf - folium, in
Sunflower - Helianthus, i m
oil of anise
New words: oil - oleum, in anise-Anisum, in
remedy with sugar
New words: remedy - remedium, in
sugar - Saccharum, in

## 2. Translate the following word combinations:

Ointment of hydrocortisone for eyes.
New words: ointment - unguentum, i n
hydrocortisone - Hydrocortisonum, in
eye - oculus,i m
syrup of rhubarb without water
New words: syrup - sirupus, i m
rhubarb - Rheum, in
water - aqua, ae f
water of fennel with syrup of sugar
New words: water - aqua, ae f
fennel-Foeniculum, in
sugar - Saccharum, in
liniment with starch of wheat
New words: liniment - linimentum, in
starch - Amylum, in
wheat - Triticum, in
suppositories with dimedrole
New words: suppository - suppositorium, i n
decoction of leaves of sage without water
New words: decoction - decoctum, i n
leaf - folium, in
sage - Salvia, ae f
bottle with oil of cacao
New words: bottle - unguentum, in
oil - oleum, in
Cacao (not declined)
infusion of leaves of nettle in bottles
New words: infusion - infusum, in
leaf - folium, in
nettle - Urtica, ae f
suppositories with oil of sea buckthorn
New words: suppository - suppositorium, i n
oil-oleum, in
sea buckthorn - Hippophae, es f

## 3. Translate the following sentences:

a) into Latin:

Analgine is used in the form of tablets.
New words: analgine - Analginum, in
form - forma, ae f
tablet - tabuletta, ae f
Decoction is prepared from leaves of sage.
Analgine is used in the form of tablets.
New words: analgine - Analginum, in
form - forma, ae f
tablet - tabuletta, ae f

## b) into English:

Recipe oleum Cacao pro globulis.
New words: oleuim, in - oil
globulus, i m - globule
Pharmaceuta infusum herbae Thymi filtrat.
New words: pharmaceuta, ae f, m - pharmacist
Recipe oleum Cacao pro globulis.
New words: oleuim, in - oil
globulus, i m - globule

## 4. Translate the following prescription:

Rx: Menthole 0,05
Oil of almonds 15 ml
Oil of eucalyptus 20 ml
Mix. Give out.

Administer.
New word: menthol - Mentholum, in
eucalyptus - Eucalyptus, if
Rx: Liniment of synthomycine $1 \%$ with novocaine $0,5 \%-25,0$
Give out.
Administer.
New words: synthomycine - Synthomycinum, in
novocaine - Novocainum, in
Rx.: Emulsion of oil of castor plant 180,0
Syrup of sugar 200 ml
Mix. Give out.

Administer.
New word: castor plant - Ricinus,i m

## THEME 9. <br> LATIN ADJECTIVES. ADJECTIVES OF THE 1ST AND 2ND DECLENSIONS (THE 1ST GROUP OF ADJECTIVES)

There are 2 groups of adjectives. We differ them according to the dictionary forms.

If we see ALBUS, A, UM (white), LIBER, A, UM (free) - they are the $1^{\text {st }}$ group.

In case of NATURALIS, E - the $2^{\text {nd }}$ group
All the adjectives don't have their Gen. in the dictionary. They have their gender endings -3 endings for three genders. In the case of the $1^{\text {st }}$ group of adjectives we will always have them in the dictionary.

## DICTIONARY FORM OF THE 1ST GROUP ADJECTIVES

NB! These adjectives are declined as nouns of the $1^{\text {st }}$ or $2^{\text {nd }}$ declensions according to the ending chosen.

## albus, a, um

Full form of masculinum alb -us (as noun SIRUPUS, I M - $\mathbf{2}^{\text {nd }}$ decl.)
Ending of femininum - -a (as noun AQUA, AE F)
Ending of neutrum - -um (as noun FOLIUM, I N)
WORD ORDER
Any pharmaceutical term begins with the noun in its NOM. Sing or plur.the $2^{\text {nd }}$ place is for an adjective

Engl. - white ointment - Lat. Ointment white- unguentum(n) album(n) -
Rp: Unguenti albi
Coordination of adjective with a noun
M.: Sirupus, i $\underline{m}+$ spiss-us, a, um $=$ sirupus spissus
F.:Tinctura, ae $\mathrm{f}+$ spiss-us, $\underline{\text { a }}$, um $=$ tinctura spissa
N.:Oleum, in + spiss-us, a, um =oleum spissum

- Rules of coordination:

Eg. Dry extract(Nom.sing) The $1^{\text {st }}$ place for the noun!(dictionary formsextractum I, n + siccus,a,um)

1. we have to determine gender of the noun extractum - $\underline{\mathrm{n}}$. This word will be the first
2. We choose one of three endings for the adjective according to the gender of the noun - ending -um (n) We have chosen - siccum (n)
3. Term itself is

Extractum (n) siccum(n) Rp: Extracti sicc...

NB! Latin nouns have their gen.sing. in the dictionary forms, latin adjectives have only Nominativus form, but 3 endings to be chosen

## BASIC MODELS OF PHARMACEUTICAL TERMS

1. Noun + noun ( the only noun may have its Nom. all other nouns have their Gen. form.
Oil of anise - oleum Anisi
2. Noun + adjective (All the grammar categories of adjective must coincide with noun categories - gender, number ad case)
Bitter remedy - remedium amarum
3. Noun+noun+adjective ( The $1^{\text {st }}$ place - Noun in in its Nom.(can be declined!)

The $2^{\text {nd }}$ place - noun in its Gen (the Gen. form will not be changed), The 3d place for the adjective (it must be declined according to the $1^{\text {st }}$ noun:
Composed plaster of lead(plaster of lead composed)
Emplastrum Plumbi compositum
Rp: Emplastri Plumbi compositi

## Extracts consistency

siccus, a, um - dry
fluidus, a, um - fluid
spissus, a, um - thick

## WORD ORDER!

Extractum...(Gen of Plant name)...(siccum, fluidum, spissum)
E.g. dry extract of senna $=$ Lat. Extract of senna dry $($ Senna, ae f)

Extractum Sennae siccum
Rp.: Extracti Sennae sicci...
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Decline the following word combination:

spirituous tincture
New words: tincture - tinctura, ae f
spirituous - spirituosus, a, um
bitter juice
New words: juice - succus, i m
bitter-amarus, a, um
internal remedy
New words: remedy - remedium, in
internal - internus, a, um

## 2. Translate the following word combinations:

dry extract of rhubarb
New words: extract - extractum, in
Rhubarbarb - Rheum, in
dry - siccus, a, um
stomach tablets in paper
New words: tablet - tabuletta, ae f
stomach - stomachicus, a, um
paper - charta, ae f
ointment "Flamidez" in black flask
New words: ointment - unguentum, in
flask - vitrum, in
black - niger, gra, grum
Native gastric juice for sick men.
New words: juice - succus, i m
gastric - gastricus, a, um
native - nativus, a, um
sick man - aegrotus, i m
dry extract of valerian in tablets
New words: extract - extractum, in
dry - siccus, a, um valerian - Valeriana, ae f tablet - tabuletta, ae f
water with bitter juice of lemon
New words: water - aqua, ae f
juice - succus, i m
bitter - amarus, a, um
lemon - Citrus, i m
bottle with ophthalmic ointment of vaseline
New words: ointment - unguentum, in
bottle - vitrum, in ophthalmic - ophthalmicus, a, um
tablets of dry extract of valerian
New words: tablet - tabuletta, ae f
extract - extractum, in
dry - siccus, a, um
valerian - Valeriana, ae f
white streptide in tablets
New words: streptocide - Streptocidum, in

$$
\begin{aligned}
& \text { white - albus, a, um } \\
& \text { tablet - tabuletta, ae f }
\end{aligned}
$$

## 3.Translate the following sentences:

## a) into Latin:

He prepares spirituous tincture of valerian.
New words: tincture - tinctura, ae f
valerian - Valeriana, ae f
spirituous - spirituosus, a, um
paper with solid paraffin
New words: paper - charta, ae f
paraffin - Paraffinum, in
solid - durus, a, um
Blue methylene is used in black bottle.
New words: methylene - Methylenum, in
blue - coeruleus, a, um
bottle - vitrum, in
black - niger, gra, grum

## b) into English:

Remedia in capsulis gelatinosis dantur.
New words: remedium, in - remedy
capsulus, i m - capsule
gelatinosus, a, um - starch (adj)
Oleum camphoratum oleum Helianthi continet.
New words: oleum, in - oil
camphoratus, a, um - camphor (adj.)
Helianthus, in - sunflower
Succus siccus ex foliis Aloe in medicina adhibetur.
New words: succus, im - juice
siccus, a, um - dry
folium, in - leaf
Aloe, es f - aloe

## 4. Translate the following prescription:

Rx: Thick extract of belladonna 0,5
Anaesthesine 1,0
Lanoline 20,0
Mix to get ointment. Give out.
Administer.

New words: thick - spissus, a, um
extract - extractum, in belladonna - Belladonna, ae f
Rx:Tablets of dry extract of senna 0,3 in number 20
Give out.
Administer.
New word: senna (plant) - Senna, ae f
Rx: Fluid extract of valeriane 10 ml
Tincture of rhubarb 1 ml
Distilled water 100 ml
Mix. Give out.

Administer.
New word: distilled - destillatus, a, um

## THEME 10.

## PAST PARTICIPLE SIMPLE. NAMES OF PHARMACOLOGICAL GROUPS. TERMINAL ELEMENTS USED IN THE NAMES OF MEDICAMENTS.

1. Participles are verbal forms with adjective endings; they may be called "verbal adjectives" as they agree with their nouns in gender, case and number. Participium perfecti passivi (Participle II) is formed from the stem of supine by adding adjectival gender endings -us(m), -a(f), -um(n).

| VERB | SUPINE STEM | PARTICIPIUM <br> PERFECTI PASSIVI |
| :--- | :--- | :--- |
| curo, curātum, āre <br> To treat | curat- | curātus, a, um - treated |
| misceo, mixtum, ēre <br> To mix | mixt- | mixtus, a, um - mixed |
| solvo, solūtum, ĕre <br> To dissolve | solut- | solutus, a, um - dissolved |

1. destillatus, a, um - distilled
distilled water - aqua destillata
2. depuratus, a, um - depurated
depurated sulphur - Sulphur depuratum
3. rectificatus, a, um - rectified

Rectified oil of terpintine - oleum Terebinthinae rectificatum

## 4. purificatus, a, um - purified

serum purificatum - purificated serum
purificated water - aqua purificata
5. compositus, a, um - complex, compound
compound liniment of Lanoline - linimentum Lanolini compositum
6. obductus, a, um - coated

Coated tablet "Allochol" tabuletta "Allocholum" obducta
7. reductus, a, um - reduced
reduced iron - Ferrum reductum
8. concentratus, a, um - concentrated
9. dilutus, a, um - diluted
concentrated, diluted acid - acidum concentrated, diluted
10. ustus, a, um - burnt
burnt magnesium - Magnesium ustum
11. praecipitatus, a, um - precipitated
praecipitated mercury - Hydrargrum praecipitatum
12. tritus, a, um - grated

Grated camphor - Camphora trita
13. pulveratus, a, um - pulverized

Pulverized dimedrole - Dimedrolum pulveratum
14. sterilisatus, a, um - sterilized
sterilized solution - solution sterilisa
15. solutus, a, um - dissolved
dissolved nitroglycerine - Nitroglycerinum solutum
16. vitaminisatus, a, um - vitaminized
vitaminized oil - oleum vitaminosum
2. Adjectives characterizing remedies on pharmacological action are usually named with the adjectives in the form 0f neuter plural as it means their agreement with the noun REMEDIA (n, Nom. pl.), in Sing. we have remedium sedativumsingle sedative remedy, when we use plural we write REMEDIA SEDATIVA sedative remedies. In pharmaceutical terminology we use only adjective in its plural without noun:
anaesthetica - anesthetics
sedative - sedatives
spasmolytica - spalmolysants
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Decline the following word combination:

distilled water
New words: water - aqua, ae f
distilled - destillatus, a, um
diuretic remedy
New words: remedy-remedium, in
diuretic - diureticus, a, um
concentrated juice
New words: juice - succus, i m
concentrated - concentratus, a, um

## 2. Translate the following word combinations:

bottle with pulverized camphor
spasmolysant tablets of dry extract of valerian
New words: tablet - tabuletta, ae f
spasmolysant - spasmolyticus, a, um
extract - extractum, in
dry - siccus, a, um
valerian - Valeriana, ae f
white streptide in coated tablets
New words: streptocide - Streptocidum, in
white - albus, a, um
tablet - tabuletta, ae f
purified antitetanus serum
New words: serum - serum, in
antitetanus - antitetanicus, a, um
purified - purificatus, a, um
coated tablets "Allocolum" in paper
New words: tablet - tabuletta, ae f
coated- obductus, a, um
paper - charta, ae f
composed ointment "Flamidez" in black flask
New words: ointment - unguentum, i n
composed - compositus, a, um
flask - vitrum, in
black - niger, gra, grum
bottle with dissolved nitroglycerine.

New words: bottle - lagena, ae f
dissolved - solutus, a, um
dried herb of wormwood in tablets
New words: herb - herba, ae f
dried - exsiccatus, a, um
wormwood - Absinthium, in
tablet - tabuletta, ae f
water with concentrated juice of lemon
New words: water - aqua, ae f
juice - succus, im
concentrated - concentratus, a, um
lemon-Citrus, i m

## 3. Translate the following sentences:

a) into Latin:

Blue methylene is used in black bottle.
New words: methylene - Methylenum, in
blue - coeruleus, a, um
bottle - vitrum, i n
black - niger, gra, grum
He uses depurated wax for ointment.
New words: wax - cera, ae f
depurated - depuratus, a, um
ointment - unguentum, in
Give sick man ophthalmic ointment of dibiomycine.
New words: sick man - aegrotus, i m
ointment - unguentum, in
ophthalmic - ophthalmicus, a, um

## b) into English:

Succus exsiccatus ex foliis Aloe in medicina adhibetur.
New words: succus, i m - juice
exsiccatus, a, um - dried
folium, in - leaf
Aloe, es f - aloe
Remedia contra cardialgiam in capsulis gelatinosis dantur.
New words: remedium, in - remedy
cardialgia, ae f - heart pain
capsula, ae f - capsule
gelatinosus, a, um - starch(adj)

Nystatinum ut remedium fungicidum praescribitur.
New words: ut - as
remedium, in-remedy
fungicides, a, um - antifungal

## 4. Translate the following prescription:

Rx: Fluid extract of valeriane 10 ml
Tincture of rhubarb 1 ml
Distilled water 100 ml
Mix. Give out.

Administer.
Rx: Pure urea 8 ml
Lanoline 55,0
Oil of preaches 75 ml
Purified water 100 ml
Mix to get liniment. Give out.
Administer.
New words: urea - urea, ae f
peach - Persicum,in
water - aqua, ae f
purified - purificatus, a, um
Rx: Antidiphtheric serum (purified, concentrated) 5000 AU
Give out such doses in number 10 in ampoules.
Administer.

## THEME 11.

NOUNS OF THE 3RD DECLENSION. THE MASCULINE GENDER.

There are endings of the masculine gender nouns in their Nominativus and Genetivus.

| Nom. Sing. | Gen. sing. | Dictionary form | Stem |
| :--- | :--- | :--- | :--- |
| -os | or-is | flos, floris $(m)-$ flower | flor- |
| -o | -on-is,-in-is | pulmo, onis $(m)$ - lung <br> homo, inis $(m)-$ man | pulmon- |
| -or | -or-is | liquor, oris $(m)$ - liquid | liquor- |
| -es | -it-is,ed-is | Stipes,itis $(m)-$ stalk <br> pes, pedis $(m)-$ foot,leg | stipit- <br> ped- |


| -ex | -is -is | Cortex, icis $(m)-$ bark | cortic- |
| :--- | :--- | :--- | :--- |
| -er | -er-is | aether, eris $(m)-$ ether |  |
|  |  | ether- |  |
|  |  | venter, tris $(m)$ |  |

Nom. Sing.

| -os | or-is |
| :--- | :--- |
| -o | -on-is,-in-is |
| -or | -or-is |
| -es | -it-is,ed-is |
| -ex | -is -is |
| -er | -er-is |

Dictionary form
flos, floris (m) - flower
pulmo, onis (m) - lung homo, inis ( $m$ ) - man
liquor, oris ( $m$ ) - liquid
Stipes,itis (m)-stalk pes, pedis ( $m$ ) - foot,leg
Cortex, icis(m) - bark aether, eris (m) - ether

## EXCEPTIONS FROM THE MASCULINE GENDER RULES

os, oris (n) - mouth
tuber, tuberis ( n ) - tuber, bulb
Menyanthes, idis (f) - buckbean
Papaver, eris (n) - poppy
Piper, eris (n) - pepper
Polygonum(i) hydropiper(eris) - water pepper
Case endings of consonant type nouns ( $\mathbf{m}, \mathrm{f}$ )
homo, inis m - man

| Casus | Singularis | Pluralis |
| :--- | :--- | :--- |
| NOM | hom-o | homin-es |
| GEN | homin-is | homin-um |
| DAT | homin-i | homin-ibus |
| ACC | homin-em | homin-es |
| ABL | homin-e | homin-ibus |

Case endings of mixed type nouns ( $\mathrm{m}, \mathrm{f}$ )
dens, dentis $m-$ tooth

| Casus | Singularis | Pluralis |
| :--- | :--- | :--- |
| NOM | dens | dent-es |


| GEN | dent-is | dent-ium |
| :--- | :--- | :--- |
| DAT | dent-i | dent-ibus |
| ACC | dent-em | dent-es |
| ABL | dent-e | dent-ibus |

## NOUNS OF MASCULINE GENDER IN PRESCRIPTIONS

1) Liquor, oris $m$ - liquid

Liquor Ammonii anisatus - anise liquid of ammonia
Recipe: Liquoris Ammonii anisati
Liquor Ammonii caustici (Solutio Ammonii caustici) - aqueous ammonia liquid (solution) of caustic ammonia)

Recipe: Liquoris Ammonii caustici
2) Flos, floris $m$ - flower (in prescriptions - Gen. pl.)

Recipe: Florum...
3) Carbo, onis f - coal

Carbo activatus - activated coal
Recipe: Carbonis activati...
4) Aether, eris $m$ - ether

Aether aethylicus - ethylic ether
Recipe: Aetheris aethylici...
Aether pro narcosi - ether for narcosis
Recipe: Aetheris pro narcosi...
5) Cortex, icis m - bark

Recipe: Corticis...
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1. Define the stem of the noun, write in the forms Nom. et Gen. sing., plur: thick liquid (liquor, oris $m$ - spissus, $a$, um)
composed powder (pulvis, eris $m+$ compositus, a, um)
white flower (flos, floris $\mathrm{m}+$ albus, $\mathrm{a}, \mathrm{um}$ )

## 2. Translate the following word combinations:

prescription for the author
New words: prescription - praescriptio, onis f
author - auctor, oris $m$
cut bark of water-elder

New words: bark - cortex, icis m
cut - concisus, a, um
water-elder - Viburnum,in
tablets of activated coal
New words: tablet - tabuletta, ae f
coal - carbo, onis m
activated - activatus, a, um
fluid extract of water pipper
New words: extract - extractum, in
fluid - fluidus, a, um
water pipper - Polygonum(i, n) hydroppiper,eris $m$
coated tablets of activated coal
New words: tablet - tabuletta, ae f
coated - obductus, a, um
coal - carbo, onis m
activated - activatus, a, um
decoction of herb of shepherd's purse
New words: decoction - decoctum, in
herb - herba, ae f
shepherd's purse - Bursa pastoris
Herb and flowers of yarrow.
New words: herb - herba, ae f
flower - flos, floris m
yarrow - Millefolium, in
pulverized flowers of camomile
New words: flower - flos, floris m
pilverized - pulveratus, a, um
cfmomile - Chamomilla, ae f
Water with Burov's liquid
New words: water - aqua, ae f
liquid - liquor, oris m
Burov (name of doctor) - Burovus, i m

## 3. Translate the following sentences:

## a) into Latin:

Give sick man infusion of flowers of chamomile.
New words: sick man - aegrotus, i m
infusion - infusum, in
flower - flos, oris m
chamomile - Chamomilla, ae f
Flowers of chamomile contains vitamins
New words: flower - flos, floris m
chamomile - Chamomilla, ae f vitamin - vitaminum, in
Give sick man infusion of leaves of buckbean.
New words: sick man - aegrotus, im
infusion - infusum, in
leaf - folium, in
buckbean - Menyanthes,idis m

## b) into English:

Praeparata corticis Frangulae ut remedia laxativa adhibentur.
New words: ut - as
remedium, i n - remedy
laxativus, a, um - laxative
cortex, icis m-bark
frangula, ae f - buckthorn
Adhibe praeparata ex floribus Arnicae.
New words: praeparatum, i n - praeparation
flos, floris m - flower
Arnica, ae f - arnica
Liquor Ammonii anisatus in vitro datur.
New words: liquor, oris m - liquid
Ammonium, in-ammonia
anisatus, a, um - anise (adj)
vitrum, in - flask

## 4. Translate the following prescription:

Rx: Coffeine 0,5
Anise liquid of ammonia 50 ml
Syrup of marsh mallow 200 ml Purified water 30 ml of each
Mix. Give out.

Administer.
New words: liquid - liquor, oris m anise - anisatus, a, um ammonia-Ammonium, in
syrup - sirupus, i m
marshmallow - Althaea, ae f

Rx: Chloroforme
Aethylic ether equal 10 ml
Aqueous Ammonia (strong ammonia solution) 5 drops
Mix. Give out.

Administer.
New word: aethylic - aethylicus, a, um ether - Aether, eris m
Rx: Infusion of leaves of buckbean 10,0-200 ml
Give out.
Administer.

THEME 12.

## NOUNS OF THE $3^{R D}$ DECLENSION. THE FEMININE GENDER.

There are endings of the feminine gender nouns in their Nominativus and Genetivus singularis.

| Nom. Sing. | Gen. sing | Example |
| :---: | :---: | :---: |
| -as | -at + -is | sanitas, atis f - health |
| $\begin{aligned} & \text {-es } \\ & \text { (equisyllabic) } \end{aligned}$ | -is | pubes, is f - pubes |
| -is (different <br> number of syllables) -is (equal number of syllables) | id-is -is | Adonis, idis f - Adonis auris, is $\mathrm{f}-\mathrm{ear}$ |
| -us | ut-is <br> ud-is | salus, utis f - health palus, udis f - bog |
| $\begin{aligned} & \text {-ns } \\ & \text {-rs } \end{aligned}$ | -nt -is <br> -rt -is | mons, montis $f$ - mountain pars, partis f - part |
| $\begin{aligned} & -\mathrm{x} \\ & (\text { except of }-\mathrm{ex}) \end{aligned}$ | -c-is | pax, pacis $f$ - peace <br> radix, icis $f$ - root <br> nux, nucis $f$ - nut |
| -do | -din-is | hirudo, inis f - lech |
| -go | -gin-is | Plantago, inis f - plantain or fleawort |
| -io | -ion-is | solutio, onis f - solution |

## EXCEPTIONS FROM FEMININE GENDER RULES

Ribes, is n - current;
Echinopanax, acis n - wolfberry
turio, onis m - shoot
pulvis, eris $m$ - powder
adeps, adipis $m$ - fat
NB! Adeps suillus or axungia porcina - swinish fat

Case endings of consonant type
Hirudo, inis f

| Casus | Singularis | Pluralis |
| :--- | :--- | :--- |
| NOM | hirud-o | hirudin-es |
| GEN | hirudin-is | hirudin-um |
| DAT | hirudin-i | hirudin-ibus |
| ACC | hirudin-em | hirudin-es |
| ABL | hirudin-e | hirudin-ibus |

Case endings of mixed type
Pars, partis f

| Casus | Singularis | Pluralis |
| :--- | :--- | :--- |
| NOM | pars | part -es |
| GEN | part-is | part -ium |
| DAT | Homin part -i | part -ibus |
| ACC | part -em | part -es |
| ABL | part -e | part -ibus |

1) radix, icis $f$ - root

Recipe: Radicis ..
2) mucilago, inis f - mucus

Recipe: Mucilaginis...
3) pulvis, eris $m$ - powder

Recipe: Pulveris..
4) solution, onis f - solution (often used with adjectives in their feminine)
solutio...oleosa - oil solution of...
Recipe: Solutionis.... Oleosae....
solutio... spirituosa - spirituous solution of...
Recipe: Solutionis... spirituosae
5) injectio, onis f - injection (with preposition PRO+ Abl. Plur.)
pro injectionibus - for injections
Recipe: Aquae pro inectionibus
6) infans, ntis m, f - child

Pro infantibus... (for children)
Recipe: Mixturae contra tussim pro infantibus
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1. Define the stem of the noun, write in the forms Nom. et Gen. sing., plur: cut root (radix, icis $\mathrm{f}+$ concisus, a, um)
oil solution (solutio, onis $\mathrm{f}+$ oleosus, a, um)
yellow nut (nux, nucis $\mathrm{f}+$ flavus, a, um)

## 2. Translate the following word combinations:

juice from leaves of foxglove
New words: juice - succus, i m
leaf - folium, in
foxglove - Digitalis, is $f$
pine tar
New words: tar - pix liquid
pine - Pinus, if
syrup from roots of marchmallow
New words: syrup - sirupus, i m
root - radix, icis m
marshmallow - Althaea, ae f
cut root of valerian
New words: root - radix, icis f
cut - concisus, a, um valerian - Valeriana, ae f
starch of maize in a box
New words: starch - amylum, in
maize - Mays,ydis f
box - scatula, ae f
infusion of berries of black currant
New words: infusion - infusum, I n
berry - bacca, ae f
currant - Ribes, is $f$
black - niger, gra, grum
solution for inhalation
New words: solution - solution, onis f inhalation - inhalation, onis f
oil solution of nitroglycerine in capsules
New words: oil (adj.) - oleosus, a, um
capsule - capsula, ae f
composite powder of liquorice
New words: powder - pulvis,eris m
composed - compositus, a, um
liquorice - Liquiritia, ae f

## 3. Translate the following sentences:

a) into Latin:

Root of valeriane is used in medicine.
New words: root - radix, icis f
valeriane - Valeriana, ae f
medicine - medicina, ae f
Powder of root of rhubarb is used in medicine.
New words: powder - pulvis, eris m
root - radix, icis f
rhubarb - Rheum, in
medicine - medicina, ae f
Use depurated swinish fat for an ointment.
New words: fat - adeps, adipis m
depurated - depuratus, a, um
swinish - suillus, a, um
ointment - unguentum, in

## b) into English:

Praeparata Digitalis glycosida continent
New words: praeparatum, i n - praeparation
Digitalis, is f - foxglove
Glycosidum, in - glycoside
Pharmaceuta pro infantibus mixturam parat.
New words: pharmaceuta, ae f, m-pharmacist
infans, ntis $\mathrm{m}, \mathrm{f}$ - child
mixtura, ae f - mixture
Radix Ginseng oleum aethereum continet.
New words: ginseng - Ginseng (not declined)

> oleum, i n - oil
> ethereus, a, um - ethereal

## 4. Translate the following prescription:

Rx: Spiritous solution of Vitamine A $1 \%-20 \mathrm{ml}$
Give out.
Administer.
Rx: Tar of birch
Precipitated sulfur 5,0 of each
Vaseline 60,0
Mix to gert ointment. Give out.
Administer.
New words: tar - pix liquida
birch - Betula, ae f
sulfure - Sulfur, uris n
precipitated - praecipitatus, a, um
Rx: Powder of leaves of foxglove 0,05
Sugar 0,3
Mix to get powder
Give out such doses in number 12.
Administer.
New words: leaf - folium, in
foxglove - Digitalis, is f
sugar - saccharum, in

THEME 13.
NOUNS OF THE 3RD DECLENSION. THE NEUTER GENDER.

Nom.Sing. Stem + Gen.Sing. Dictionary form stem

| Nom.Sing. | Ocновa+Gen.Sing. | Dictionary form | stem |
| :--- | :--- | :--- | :--- |
| -en | -inis | semen, inis $n$-seed | semin- |
| -e | -is | кete, is $n$ - network | ret- |
| -ar | -aris | pulvinar, <br> pillow | pulvinar- |


| -al | -alis | animal, alis nanimal | animal- |
| :---: | :---: | :---: | :---: |
| -ma(Gr) | -atis | trauma, atis $n$ trauma stigma, atis $n-$ stigma | traumat-stigmat- |
| -ur | -uris -oris | Sulfur, uris n sulfur | Sulfur- |
| -US | -oris -eris | corpus, oris nbody genus, eris $n-$ gender | corpor-gener- |

"Golden" rule of neuter gender nouns
Nom. $=$ Acc. Plural form - ending -A
Stem + ending CORPUS, ORIS N (sing.)
CORPORA (pl.)
NB!
Engl. OF = Lat. Genetivus (2nd dict. Form)

Ren, renis m - kidney
Splen, splenis $m$ - spleen

## SINGULAR

case Consonant type Vowel type Mixed type
Nom. different
Gen. -is

$$
\begin{array}{cl}
\text {-e/ -al/ -ar } & \text { different } \\
\text {-is } & \text {-is } \\
-\mathrm{i} & -\mathrm{i} \\
=\text { Nom. } & \text { =Nom. } \\
-\mathrm{i} & -\mathrm{e}
\end{array}
$$

Dat. -i
Acc. =Nom
Abl. -e
PLURAL
case Consonant type Vowel type Mixed type
Nom. -a $\quad$-ia $\quad$-a
Gen. -um -ium -ium
Dat. -ibus -ibus -ibus

Acc. =Nom. = Nom. =Nom.
Abl. -ibus -ibus -ibus
case Singularis Pluralis
Nom. -ma -ata
Gen. -atis -atum
Dat. -ati atis
$\begin{array}{lll}\text { Acc. } & \text {-ma } & \text {-ata } \\ \text { Abl. } & \text {-ate } & \text {-atis }\end{array}$

1. Alumen, inis $\mathrm{n}-$ alum

Recipe: Aluminis..
Alumen ustum - burnt alum
Recipe: Aluminis usti...
2. Sulfur, uris n - sulfur

Recipe: Sulfuris
Sulfur praecipitatum depuratumdepurated precipitated sulfur
Recipe: Sulfuris praecipitati depurati
3. Rhizoma, atis n - rhizome

Recipe: Rhizomatis...
4.Stigma, atis n - stigma (Lat.plural stigmata Engl.plur. stigmata)

Decoction of stigmata of maize - Decoctum stigmatum Maydis
Recipe: Decocti stigmatum Maydis .
5. Semen, inis n - seed

Decoction of seeds - Decoctum seminum...
6. Oleum jecoris - oil of fish liver

Vitaminized fish liver oil - oleum jecoris vitaminisatum
Recipe: Olei jecoris vitaminisati..
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1.Define the stem of the noun, write in the forms Nom. et Gen. sing., plur: yellow seed (semen, inis $n+$ flavus, $a$, um) vitreous body (corpus, oris $n+$ vitreus, $a, u m$ )
big head (caput, itis $n+$ magnus, $a$, um)

## 2. Translate the following word combinations:

emulsion of seeds of pumpkin
New words: emulsion - emulsum, i n
seed - semen, inis n
pumpkin - Cucurbita, ae f
remedy for paultice
New words: remedy - remedium, i n
poultice - cataplasma, atis $n$
heads of poppy
New words: head - caput, itis n
poppy - Papaver, eris n
precipitated sulfur for ointment
gargle with tincture of calendule infusion of seeds of fennel
fluid extract of stigmatas of maize pulverized burnt alum
vitaminized fish liver oil

## 3. Translate the following sentences:

a) into Latin:

Give out vitreous body in ampules.
New words: vitreous - vitreus, a, um
body - corpus, oris $n$
ampule - ampulla, ae f
Give out depurated honey for gargle.
Preparation "Strophanthine" is prepared from seeds of strophanthus.
b) into English:

Oleum jecoris Aselli in medicina adhibetur.
New words: oleum, in-oil
jecur, oris - liver (of sea fish)
Asellus, i m - cod (fish)
Sulfur depuratum ad curationem morborum cutis adhibetur.
Mucilago seminm Lini ex tempore preaparatur.

## 4. Translate the following prescription:

Rx: Depurated sulfur
Composite powder of liquorice 0,25 of each
Mix to get powder.
Give out such doses in number 10.
Administer.
New words: sulfur - Sulfur, uris n
depurated - depuratus, a, um
powder - pulvis, eris m
composed - compositus, a, um
liquorice-Liquiritia, ae f
Rx: Anaesthesine 5,5
Naphthalane 3,0
Precipitated sulfur 1,5
Paste of Zinc 20,0

Mix to get ointment. Give out.
Administer.
New words: sulfur - Sulfur, uris n
Rx: Emulsion of seeds of pumpkin
Sugar 20,3
Purified water 80 ml
Mix. Give out.

Administer.

## THEME 14.

greek nouns of the 3RD DECLENSION.

Nouns of feminine of Greek origin belong to the $3^{\text {rd }}$ declension and have their ending -SIS in Nom. and Gen. Sing. and an equal number of syllables in these cases:
basis, is $f$ - base
tussis, is f - cough.
narcosis, is $\mathrm{f}-$ narcosis
pertussis, is $f$ - whooping cough
These nouns have their peculiarities when declined: Acc.sing. -im
GREEK NOUNS OF FEMININE GENDER IN PHARMACEUTICAL TERMINOLOGY

1) dosis, is f - dose (of remedy)

Dosis maxima - maximum dose
Dosis minima - minimum dose
Dosis media - (medium (therapeutic) dose)
Pro dosi - for one dose, single dose
2) tussis, is $f$ - cough

Contra tussim - against cough
dry mixture against cough - ...
3) narcosis, is $f$ - narcosis
for narcosis - ...
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1. Define the stem of the noun, write in the forms Nom. et Gen. sing., plur: maximal dose (dosis, is $f+$ maximus, $a, m$ )
strong cough (tussis, is $\mathrm{f}+$ validus, a , um)
yellow rhizome (rhizome, atis $n+$ flavus, $a$, um)

## 2. Translate word combinations:

remedies per mouth maximum single dose of pentamine remedies against fever therapeutical dose of tetracycline 0,5
solution for gargles
dry mixture against cough for children
ether for narcose
etherous oil of mustard
analgine for one dose

## 3.Translate the following sentences:

a) into Latin:

Herba of thermopsis is used contra cough.
Use ether for narcose for sick men.
Poultice of mustard is used contra myalgy.
b) into English:

Calomelas ut remedium externum adhibetur.
Oleum Sinapis aethereum in medicina adhibetur.
Medicus antibiotica contra sepsim adhibet.

## 4. Translate the following prescription:

Rx: Calomel 0,1
Sugar of milk 0,3
Mix to get powder. Give out.
Administer
Rx: Fluid extract of stigmata of maize 50 ml
Give out.
Administer.
Rx: Dry mixture against cough for children 50,0
Give out in a small bottle.
Administer.

## THEME 15.

PRACTICAL SKILLS "LATIN GRAMMAR. THE PRESCRIPTION".

For successful completion of the theme, one needs to learn information from the textbook.

## Textbook:

Svetlichnaya Y.I. Latin for Pharmacy Students: Textbook / Y.I. Svetlichnaya, I.A. Tolok, E.A. Volobuyeva. - Kharkiv: NUPh, 2006. - 212 p.

## EXAMPLES OF TASKS FOR PRACTICAL SKILLS

1. Translate in Nom. and Gen. Singularis and Pluralis:
yellow liquid (liquor, oris $m+$ flavus, a, um)
2. Translate pharmaceutical terms in Nom. and Gen. Singularis:
a) spirituous solution of iodine
b) fluid extract of aloe
c) butadione with novocaine
d) white substance
e) yellow mercury
3. Translate into English:
a) Liquor Ammonii caustici
b) Decoctum seminum Lini
c) Mixtura conra tussim sicca pro infantibus
d) Pulvis Glycyrrhizae compositus
e) Hydraryrum praecipitatum album

## 4. Translate into Latin:

a) Rx: Coffeine 0,5

Anise liquid of ammonia 50 ml
Syrup of marshmallow 200 ml
Purified water 30 ml of each
Mix. Give out.

Administer.
b) Rx: Powder of leaves of foxglove 0,05

Sugar 0,3
Mix to get powder.

Give out such doses in number 12.
Administer.
c) Rx: Dry mixture against cough for children 50,0

Give out in a small bottle.
Administer.
5. Translate into English:
a) Recipe: Unguenti Sulfuris praecipitati albi $1 \%-20,0$

Da.
Signa.
b) Recipe: Mucilaginis seminum Lini 90,0

Benzonaphtholi1,0
Misce.
Da.
Signa.
c) Recipe: Extracti stigmatum Maydis fluidi 50 ml

Da.
Signa.

## SECTION II. LATIN GRAMMAR. SPECIAL TERMINOLOGY.

THEME 1.
ADJECTIVES OF THE 3 DECLENSION (THE 2ND GROUP OF ADJECTIVES).

All the Latin adjectives are divided into two groups according to their dictionary endings:
$1^{\text {st }}$ group (adjectives of the $1-2$ declensions) have their endings -US, -A, -UM (albus, a, um - white)
$2^{\text {nd }}$ group -(adjectives of the 3 d declension).
Their dictionary endings

1) -er, -is, -e - paluster, tris, tre (bog),
2) -is, -is, e - naturalis, is, e (natural),

3 ) -x , -r, -s (the only ending for all the genders)
According to the dictionary form endings, adjectives are divided into 3 divisions.

NB! All the $1^{\text {st }}$ group adjectives are declined as nouns of the $1^{\text {st }}$ or $2^{\text {nd }}$ declension.

All the adjectives of the $2^{\text {nd }}$ group are declined as $3^{\text {rd }}$ declension nouns (vowel type), SO THEIR ENDING IN GEN. SING. -IS.

## $2^{\text {nd }}$ group adjectives <br> The $1^{\text {st }}$ division: adjectives of $\mathbf{3}$ endings

Gender Nom. Sing. Gen. Sing.

| m | -er |
| :--- | :--- |
| f | -is |
| n | -e |

Dictionary form:
silvester, tris, tre (wood)

The 2nd group adjectives
$2^{\text {nd }}$ division: Adjectives of 2 endings

```
Gender Nom. Sing. Gen. Sing.
m
                                -is
f
n -e
```

Dictionary form:
medicinalis, e (medicinal)

## SUFFIXES OF ADJECTIVES

$\left.\begin{array}{ll|l}\begin{array}{l}\text { Latin } \\ \text { suffix }\end{array} & \begin{array}{l}\text { Meaning and } \\ \text { English }\end{array} & \text { Example } \\ \text {-alis, e } & \begin{array}{l}\text {-al } \\ \text { belonging to }\end{array} & \begin{array}{l}\text { medicinalis, } e \\ \text { medicicinal } \\ \text { (belonging to }\end{array} \\ \text { medicine) }\end{array}\right\}$

Most adjectives belong to the $2^{\text {nd }}$ division

Case endings of the 2 nd division of adjectives ( $\mathbf{m}, \mathbf{f}$ ) officinalis, e

Casus Numerus singularis Numerus pluralis

Nominativus
OFICINALIS
OFFICINAL - ES


NB! Dictionary form consists of 2 parts: full form of Nom. Sing. and ENDING WITH PART of stem (as well nouns of the $3^{\text {rd }}$ declension)
simplex, icis - simple
par,paris - equal
recens, ntis - fresh
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Write in the forms of Nom. and Gen. sing., plur:

 green nut (nux, nucis $\mathrm{f}+$ viridis, e)simple sirup (syrupus, i m + simplex, icis)
soluble tablet (tabuletta, ae $\mathrm{f}+$ solubilis, e )

## 2. Translate the following word combinations:

soluble nitroglycerine in capsules
New words: soluble - solubilis, e
capsule - capsula, ae f
extract of officinal valerian
New words: extract - extractum, in
valerian - Valeriana, ae f
officinal - officinalis
simple powder of liquorice
New words: powder - pulvis, eris m
simple - simplex, icis
liquorice - Liquiritia, ae f
pectoral mixture with glucose
New words: mixture - mixture, ae f
pectoral - pectoralis, e
sterile remedy in black flask
New words: sterile - sterilis, e
flask - vitrum, in
black - niger, gra, grum
tincture of Chinese magnolia wine
New words: tincture - tincture, ae f
Magnolia wine - Schisandra, ae f
Chinese - chinensis, e
infusion with simple syrup
New words: infusion - infusum, in
simple - simplex, icis
syrup - sirupus, i m
intramuscular injection of analgine
New words: injection -injection, onis f
intramuscular - intramuscularis, e
simple plaster of lead
New words: plaster - emplastrum, in
simple - simplex, icis
lead - Plumbum, in

## 3. Translate the following sentence into English:

Olea aetherea substantias volatiles continent.
New words: oleum, i n - oil
aethereus, a, um - ethereal
substantia, ae f - substance
volatilis, e - volatile
Solutio Euphyllini pro injectione intramusculari praeparatur.
New words: solution, onis f - solution
injection, onis f - injection
intramuscularis, e - intramuscular
Aether medicinalis in medicina adhibetur.
New words: Aether, eris m - ether
medicinalis, $\mathrm{e}-$ medicinal

## 4. Translate the following prescriptions:

a) Into Latin:

Rx: Powder of leaves of foxglove 0,05
Oil of Cocoa 2,5
Mix to get rectal suppository
Give out such doses in number 12.
Administer.
New words: powder - pulvis, eris m
leaf - folium, in
foxglove - Digitalis, is f
oil-oleum, in
cocoa - Cacao (not declined)
suppository - suppositorium, in
rectal - rectalis, e
Rx: Simple plaster of lead 0,05

Give out in scatule
Administer.
New words: plaster - emplastrum, in simple - simplex, icis
Rx: Tincture of May lily- of-valley
Simple tincture of valerian equally $7,5 \mathrm{ml}$
Adoniside 15 ml
Mix. Give out.

Administer.
New words: tincture - tincture, ae f May (adj.) - majalis, e simple - simplex, icis

## b) Into English:

Rx: Tabulettas Cytochromi C 0,01 numero 50
Da.
Signa
New words: tabuletta, ae f - tablet
Rx: Olei Pini silvestris
Olei Eucalypti ana 3 ml
Misce. Da in vitro nigro
Signa
New words: Pinus, if - pine silvester, tris, tre - forest (adj.)
Eucalyptus, if - eucalypt
Rx: Succi gastrici naturalis 100 ml
Da.
Signa.
New words: succus, i m- juice
gastricus, a, um - gastric
naturalis, e - natural

## THEME 2.

## ADJECTIVES OF THE 2ND GROUP WITH 2 ENDINGS

1. Adjectives with the endings -alis, e; aris, e express belonging to smth.
natura, ae f - nature
naturalis, e - belonging to nature NATURAL
MUSCULAR - muscularis, e

TUNICA, AE f + MUSCULARIS, E
Tunica muscularis (tunicae muscularis)
ENGL. -ar = Lat. -aris, $\mathrm{e}-\mathrm{al}=-$ alis, e medicinal $=$ medicinalis, e Medicinal glass (vitrum, in) Vitrum medicinale (vitri medicinalis)
2. Adjectives with endings -bilis, e; -ilis, e express ability, possibility to be an object of some action.
operabilis, e - one who has possibility to be operated
operable tumour (tumor, oris m)
tumor operabilis (tumoris operabilis)
solubilis, e - smth which have possibility to be solved SOLUBLE
3. Adjectives with ending -ensis, e -express attitude to the country, region, district

Arvensis, e - field
Chinensis, e - Chinese
Canadesis, e - Canadian
4. Adjectives fortis, e; mitis, e

Many remedies are produced in different concentration. The following adjectives are used in the names of medicaments
fortis, e - strong, forte
mitis, e - mild, mite
E.g.

Furaginum forte - strong furaginine
Panzynorm mite - mild panzynorme
Panzynorm forte - strong panzynorme
Coffeinum forte - strong caffeine

## Adjectives of the $\mathbf{2}^{\text {nd }}$ group with 2 endings in prescriptions

## 1.green soap - sapo viridis

Rp: Saponis viridis 15,0
Rx. Green soap 15,0
2. spring Adonis - Adonis vernalis

Rp: Hebae Adonidis vernalis 20,0
Rx: Herb of spring Adonis 20,0
3. Chinese magnolia vine - Schizandra chinensis

Rp: Tincturae Schizandrae chinensis 20 ml
Rx: Tincture of magnolia vine 20 ml
4. volatile liniment - linimentum volatile

Rp: Linimenti volatilis 100,0
Rx:Volatile liniment 100,0
5. medicinal conserved bile - Chole medicinaalis conservata Rp : Choles medicinalis conservatae 100 ml Rx: Medicinal conserved bile 100 ml
6. such - talis, e

The prescription expression Da tales doses numero... or Dentur tales doses numero... (Give out such doses in number ... or Let such doses in number... be given) is used in prescription to administer a number of single doses that must be given out to the patient if remedy is being prescribed in a quantity of a single dose.
7. equal - aequalis, e

The prescription expression Divide in partes aequalisnumero... (Divide in equal parts in number...) isusedd in the prescriptions to administer in how many equal parts to divide a prescribed quantity of a remedy. References: [Compulsory and Supplementary].

## CHECK YOURSELF

1. Write in the forms of Nom. and Gen. sing., plur:
green soap (sapo, onis $m+$ viridis, e)
medicinal syrup (sirupus, i m + medicinalis, e)
entersoluble tablet (tabuletta, ae f + enterosolubilis, e)

## 2.Translate the following word combinations:

soluble nitroglycerine capsules
New words: soluble - solubilis, e
capsule - capsula, ae f
extract of officinal valerian
New words: extract - extractum, in
valerian - Valeriana, ae f
officinal - officinalis
simple powder of liquorice
New words: powder - pulvis,eris m
simple - simplex, icis
liquorice - Liquiritia, ae f
pectoral mixture with glucose
New words: mixture - mixture, ae f
pectoral - pectoralis, e
sterile ointment in black flask
New words: sterile - sterilis, e
ointment - unguentum, in
flask - vitrum, in
black - niger, gra, grum
tincture of May lily-of- valley
New words: tincture - tincture, ae f
lily-of- valley - Convallaria, ae f
May (adj.) - majalis, e
drops of tincture of field violet
New words: drop - gutta, ae f
tincture - tincture, ae f
violet - Viola, ae f
field (adj.) - arevensis, e
solution of analgine for intramuscular injection
New words: solution - solution, onis f
injection - injection, onis $f$
intramuscular - intramuscularis, e
solution of glucose with soluble streptocide
New words: soluble - solubilis, e

## 3.Translate the following sentence into English:

Olea aetherea substantias volatiles continent.
New words: oleum, in - oil
aethereus, a, um - ethereal
substantia, ae f - substance
volatilis, e - volatile
Tabulettae Euphyllini sublinguales pro pro aegrotis dantur.
New words: tabuletta, ae f - tablet
aegrotus, im - sick man
sublingualis, e - sublingual
Aether medicinalis in medicina adhibetur.
New words: Aether, eris m-ether
medicinalis, e-medicinal

## 4. Translate the following prescriptions:

## a) Into Latin:

Rx: Powder of leaves of foxglove 0,05
Oil of Cocoa 2,5
Mix to get rectal suppository
Give out such doses in number 12 .
Administer.

New words: powder - pulvis, eris m leaf - folium, in foxglove - Digitalis, is f oil-oleum, in cocoa - Cacao (not declined) suppository - suppositorium, i n rectal - rectalis, e
Rx: Powder of chinese magnolia vine 0,3
Give out such doses in number 12
Administer.
New words: powder - pulvis, eris $m$
Magnolia vine - Schizandra, ae f
Chinese - chinensis, e
Rx: Infusion of herb of spring Adonis $6,0-180 \mathrm{ml}$
Themisale 4,0
Simple syrup 7,5 ml
Mix. Give out.

Administer.
New words: infusion - infusum, in
adonis - Adonis, idis f
herb - majalis, e
spring (adj.) - vernalis, e

## b) Into English:

Rx: Tabulettas Cytochromi C 0,01 numero 50
Da.
Signa
New words: tabuletta, ae f - tablet
Rx: Olei Pini silvestris
Olei Eucalypti ana 3 ml
Misce. Da in vitro nigro.
Signa.
New words: Pinus, i f - pine silvester, tris, tre - forest (adj.)
Eucalyptus, i f - eucalypt
Rx: Aquae Foeniculi vulgaris 100 ml
Da.
Signa.
New words: aqua, ae f - water
Foeniculum, in - fennel
vulgaris, e - common

## THEME 3.

PRESENT PARTICIPLE ACTIVE.

English participles as well as Latin are one of the forms of verb. They have gender, number and case as well as adjectives but have the category of tense as verbs. We will consider participles as adjectives with all their peculiarities.

Latin Participium praesentis activi correspond English Present Participle Active (Participle I) - these participles have their ending -ing in English - reading student.

We will compare this participle with the $3^{\text {rd }}$ declension adjectives.
According to the rule of formation for Participle in Latin we have the following:

Common rule - STEM + ENDING -NS (Gen. -NTIS)
1.Verbs of the $1^{\text {st }}$ and $2^{\text {nd }}$ conjugations

Stem of the verb + ending -ns
E.g. laborare - to work (stem - labora-) Laborans, ntis - working

Docere - to teach (stem doce-) Docens, ntis - teaching
2. Verbs of the $3^{\text {rd }}$ and $4^{\text {th }}$ conjugations

Stem + ending - ENS
E.g.
convalescere - to recover (stem reconvalec-) Reconvalescens, ntis recovering

Audire -to listen (stem audi-) audiens, ntis - listening
Dictionary form of these participles coincides with the form of the $3^{\text {rd }}$ declension adjectives of one ending - simplex, icis

Participium praesentis active are declined as the adjectives of the $3^{\text {rd }}$ declension on the vowel type.

NB! You have to know only 4 forms of declension - Nom. Sing, Plur. and Gen. Sing. Plur

| case | singularis | pluralis |
| :---: | :--- | :--- |
| NOM. | -ns | -ntes (m, f)-ntia (n) |
| GEN. | -ntis | -ntium |

E.g.

Expectorant mixture - mixture expectorans (Gen. sing. mixturae expectorantis)
repellent remedy - remedium repellens (gen.sing. remedii repellentis)

## NAMES OF INGREDIENTS IN THE COMPLEX PRESCRIPTION

PRESENT participles active are used as the names of ingredients in compound precriptions.

They are written in the following order:

1) Basis, is $\mathbf{f}$ - the active drug that provides therapeutic action.
2) Remedium adjuvans - the substance intented to assist and especially hasten the action of the basis.
3) Remedium corrigens - the substance intended to modify the action of the basis(to improve taste, smell etc.).
4) Remedium constituens - the substance intended to bring the whole into a convenient, peasant form for administration.

## Exemplar praescriptionis compositae

Recipe: Pepsini 2,0 (remedium basis)
Acidi hydrochlorici dilute 5 ml (remedium asjuvans)
Sirupi simplicis 15 ml (remedium corrigens)
Aquae destillatae ad 200 ml (remedium constituens)
Misce. Da.
Signa.
NB! Precriptions:
Viride nitens ( Viride, is n - greenery + nitens, ntis - brilliant, diamond) Brilliant green

Rp:Viridis nitentis
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1. Write in the forms of Nom. and Gen. sing., plur:
expectorant tablet (tabuletta, ae $\mathrm{f}+$ expectorans, $n$ tis)
corrective remedy (remedium, i $n+$ corrigens, $n$ tis)
adstringent juice (succus, i m + adstringens, ntis)

## 2. Translate the following word combinations:

adjuvant paste of zinc
New words: paste - pasta, ae f
adjuvant - adjuvans, ntis
anticoagulant remedies
New words: remedy - remedium, in
anticoagulant - anticoagulant,ntis f
solution of glucose with soluble streptocide
New words: solution - solution, onis f
soluble - solubilis, e
adstringent juice of lemon
New words: juice - succus, i m
adstringent - adstringens, ntis
lemon - Citrus, if
solution of strong remedy
New words: solution - solution, onis f
strong - fortis, e
spirituous solution of brilliant green
New words: spirituous - spirituosus, a, um
briiliant green - Viride nitens
powder of streptocide ut adjuvant remedy
New words: powder - pulvis, eris m
adjuvant - adjuvans, ntis
expectorant mixture against cough
New words: mixture - mixture, ae f
expectorant - expectorans, ntis
cough - tussis, is f
oil of cocoa for excipient remedy
New words: oil - oleum, in
Cocoa - Cacao (not declined)
remedy - remedium, i n
excipient - constituens, ntis

## 3.Translate the following sentence into English:

Sirupi baccarum are used ut remedia corrigentia adhibetur.
New words: sirupus, i m - syrup
bacca, ae f - berry
corrigens, ntis - corrective
Baccae Oxycocci recentes pro succo adhibentur.
New words: bacca, ae f - berry
medicinalis, e - medicinal
Oxycoccus, i m - cranberry
Recens, ntis - fresh
Succus, i m - juice
Saccharum pro remedio constituenti aut corrigenti adhibetur.

New words:Saccharum, in - sugar remedium, in - remedy constituens, ntis - vehicle, excipient corrigens, ntis - corrective

## 4. Translate the following prescriptions:

## a) Into Latin

Rx: Aqueous solution of brilliant green $1 \%-20 \mathrm{ml}$
Give out.
Administer.
Rx: Tablets of strong microfolline in number 50
Give out.
Administer.
New words: tablet - tabuletta, ae f strong - fortis,e
Rx: Infusion of common (officinal) valerian $6,0-180 \mathrm{ml}$
Simple syrup 7,5 ml
Mix. Give out.

Administer.
New words: infusion - infusum, in
common - officinalis, e
syrup - sirupu, i m
simple - simplex, icis

## b) Into English:

Rx: Olei Pini silvestris
Olei Eucalypti ana 3 ml
Misce. Da in vitro nigro.
Signa.
New words: Pinus, if - pine silvester, tris, tre - forest (adj.)
Eucalyptus, if - eucalypt
Rx: Powder of leaves of foxglove 0,05
Oil of Cocoa 2,5
Mix to get rectal suppository
Give out such doses in number 12 .
Administer.
New words: powder - pulvis, eris m
leaf - folium, in
foxglove - Digitalis, is $f$

```
    oil - oleum, i n
    cocoa - Cacao (not declined)
    suppository - suppositorium, i n
    rectal - rectalis, e
Rp: Tincture of May lily of valley
    Simple tincture of valerian equally 7,5 ml
    Adoniside 15 ml
    Mix. Give out.
    Administer.
New words: tincture - tincture, ae f
    May (adj.) - majalis, e
    simple - simplex, icis
THEME 4.
CHEMICAL NOMENCLATURE. NAMES OF ELEMENTS, ACIDS AND OXIDES.
```


## Names of the Most Important Chemical Elements

Aluminium, in - aluminium
Argentum, in - silver
Bismuthum, in - bismuth
Calcium, in - calcium
Chlorum, in - chlorine
Cuprum, in - copper
Ferrum, in - iron
Iodum, in - iodine
Hydrargyrum, in - mercury
Hydrogenium, in - hydrogen
Kalium, in - potassium
Lithium, in - lithium
Magnesium, in - magnesium
Natrium, in - sodium
Nitrogenium, in - nitrogen
Plumbum, in - lead
Thallium, in - thallium
Zincum, in - zinc
All Latin names of chemical elements are neuter gender nouns with the ending -um

## Exceptions:

Sulfur, uris n - sulfur
Phosphorus, i m - phosphorus

## Names of elements in prescriptions.

1. lead water - aqua Plumbi

Rp.: Aquae Plumbi 100 ml
2. ointment of zinc - unguentum Zinci

Rp.: Unguenti Zinci 10,0
3. depurated precipitated sufur - Sulfur praecipitatu depuratum

Rp.: Sulfuris praecipitati depurate 0,5
4. white ointment of mercury - unguentum Hydrargyri album

Rp.: Unguenti Hydrargyri albi
5. compound(simple) plaster of lead - emplastrum Plumbi compositum (simplex)
6. reduced iron - Ferrum reductum

Rp.: Ferri reducti 5,0

## Names of Acids

English names of acids consist of two words:
Acid is on the first place - acidum, in;
An adjective denoting the name of of the acid is on the second place.
acidum nitricum - nitric acid
acidum nitrosum - nitrous acid
An adjective denoting the name of the acid is formed on the model:
The stem of the acid forming $\longrightarrow \quad$-icum
element

## English suffixes in the names of oxygenous acids correspond to English ones: English -ic to Latin -icum

English -ous to Latin -osum

## E.g.

Boric acid - acidum boricum
Phosphorous acid - acidum phosphorosum
Hydroiodic acid - acidum hydroiodicum

Memorize the most important names of acids
acidum acetylsalicylicum

- acetylsalicylic acid
acidumbenzoicum - benzoic caid
acidum salycilycum
acidum hydrochloricum
- salicylic acid
- hydrochloric (muriatic) acid


## Names of Oxides and Salts

The Latin names of oxides and salts are formed in the same rule. The name of the chemical element or the name of the salt foundation in the Genetive is on the first place.
The oxide name is on the second place.
E.g.

Magnii oxydum - Magnesium oxide

The word order Latin names of oxides is similar to English one.
The $1^{\text {st }}$ place for the name of element, $2^{\text {nd }}$ for oxides
Memorize Latine Names of Oxides
oxydum, in - oxide
peroxydum, in-peroxide
hydroxydum, i n - hydroxide

## For example:

Aluminium oxide - Aluminii oxydum
Hydrogen peroxide - Hydrogenii peroxydum
Mercury hydroxide - Hydrogenii hydoxydum
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1.Translate the following word combinations:
paste of zinc in black flask
New words: paste - pasta, ae f
flask - vitrum, in
black - niger, gra, grum
enterosoluble tablets of nicotinic acid
New words: tablet - tabuletta, ae f
enterosuluble - enterosolubilis, e
concentrated solution of hydrogen oxide
New words: solution - solution, onis f
concentrated - concentratus, a, um
lead oxide in black flask
New words: flask - vitrum, in
black - niger, gra, grum
coated tablets of crystallized carbolic acid
New words: tablet - tabuletta, ae f
coated - obductus, a, um
crystallized - crystallisatus, a, um
anhydreous arsencious acid or white arsenic
New words: anhydreous-anhydricus,a,um
white - albus, a, um
coated pills of ascorbic acid
New words: pill - pilula, ae f
coated - obductus, a, um
nitrogen oxide for inhalation
New word: inhalatio - inhalatio, onis f ointment of yellow mercury oxide
New words: ointment - unguentum, in yellow - flavus, a, um

## 2.Translate the following sentence into English:

Hydroperitum praeparatum Hydrogenni peroxydi est.
New word: praeparatum, in - preparation
est - is (verb)

Preparatum "Galmanin" acidum salicylicum continet.
New word: praeparatum, in - preparation
Sulfur depuratum ut remedium antheminthicum adhibetur.
New words: depuratus, a, um - depurated
remedium, in - remedy
anthelminthucus, a, um - anthelmintic, vermicide

## 3.Translate the following prescriptions:

## a) Into Latin:

Rp : Pure phenole ( crystallized carbolic acid) 0,5
Glycerine equally 10,0
Water Of lead up to 100 ml
Mix. Give out

Administer.
New words: pure - purus, a, um
crystallized - crystallisatus, a, um
Rx: Folic acid 0,0001
Sugar 0,3

Mix to get powder.
Give out such doses in number 12.
Administer.
New words: sugar - saccharum, in powder - pulvis, a, um
Rx: Coated tablets of anhydric arsenicous acid in number 50
Give out.
Administer
New words: tablet - tabuletta, ae f coated - obductus, a, um

## b) Into English:

Rp: Unguenti Hydrargyri praecipitati albi 5\% - 30,0
Da.
Signa.
New words: unguentum, in - ointment precipitatus, a, um - precipitated
Rp: Unguenti Hydrargyri praecipitati albi 5\% - 30,0
Da.
Signa
New words: unguentum, in - ointment praecipitatus, a, um - precipitated albus, a, um - white
Rp : Ichthyoli
Zinci oxydi
Amyli Tritici 12,5 of each
Vaselini ad 50
Misce fiat pasta .
Da.
Signa.
New words: amylum, in - starch
Triticum, in - wheat
Pasta, ae f - paste

## THEME 5.

## CHEMICAL NOMENCLATURE. NAMES OF SALTS.

The Latin names of oxides and salts are formed in the same way. The name of the chemical element or the name of the salt foundation in the Genetive is on the first place. The oxide name or an anion name is on the second place.
E.g.:

Calcii chloridum - Calcium chloride
Magnii oxydum - Magnesium oxide
The word order Latin names of oxides and salts is similar to English one. Comparison of Latin and English suffixes in the anion names of salts

| English suffix | Latin Suffix | Ending <br> prescriptions |
| :--- | :--- | :--- |
| -ate | -as | -atis |
| -ite | -is | -itis |
| -ide | -idum | -idi |

E.g.:
nitrate- $\rightarrow$ nitras $\rightarrow$ nitratis
sulphate- $\rightarrow$ sulfis $\rightarrow$ sulfitis
hydrochloride- $\rightarrow$ hydrochloridum- $\rightarrow$ hydrochloridi
E.g.:

Some examples of the salts names in the Nominative:
Zinc sulphate $-\rightarrow$ Zinci sulfas
Potassium arsenite- $\rightarrow$ Kalii arsenis
Calcium chloride- $\rightarrow$ Calcii chloridum

## Names of salts in prescriptions

1. tablets of Codeine phosphate - Codeini phosphas

Rp.: Tabulettas Codeini phosphatis 0,05 numero 20
2. Ointment Of mercuryamidochloride - unguentum Hydrargyri amidochloridi

Rp.: Unguenti Hydrargyri amidochloridi
3. rivanole lactate - Rivanoli lactas

Rp.: Rivanoli lactatis 1,0
4. calcium glycerophosphate - Calcii glycerophosphas

Rp.: Calcii glycerophosphatis 0,01
5. oxytetracycline hydrochloride - Oxytetracyclini hydrochloridum

References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1.Translate the following word combinations:

oil solution of retinole acetate
New words: solution - solutio, onis f
oil - oleosus, a, um
ointment of mercury hydrochloride
New word: ointment - unguentum, in tablets of codeine phosphate in capsules
New words: oil - oleum, in
Cocoa - Cacao (not declined)
remedy - remedium, in
excipient - constituens, ntis
ophthalmic ointment of hydrocortisone acetate in black flask
New words: ointment - unguentum, in
flask - niger, gra, grum
tablets of codeine phosphate againts cough
New words: tablets - tabuletta, ae f
cough - tussis, is f
aqueous solution of sodium usninate
New words: solution - solutio, onis f
aqueous - aquosus, a, um
solution of potassium permanganate
New words: solution - solution, onis f
adjuvant - adjuvans, ntis
sodium oxybutyrate for intravenous narcosis
New words: narcosis - narcosis, is $f$
intravenous - intravenosus, a, um
ointment of mercury hydrochloride in flask
New words: ointment - unguentum, in
excipient - constituens, ntis

## 2.Translate the following sentence into English:

Calcii sulfas ustus in tabulettis praescribitur.
New words: ustus, a, um - burnt
tabuletta, ae f - tablet
Preparatum "Phytoferrolactolum" Ferri lactas continent.
New words:praeparatum,I $n$ - praeparation
Tabulettae Kalii orotatis pro infantibus praescribuntur

New words: tabuletta, ae $\mathrm{f}-$ tablet
infans, ntis m, f - child, kid
constituens, ntis - vehicle,excipient
corrigens, ntis - corrective

## 3. Translate the prescriptions:

## a) Into Latin

Rp: Mercury cyanide
Novocaine equally 10 ml
Water for injections 20 ml
Mix. Give out.

Administer.
New words: water - aqua, ae f
valerian - Valeriana, ae f
injection, onis f - injection
Rx : Isotonic solution of sodium chloride $5 \%-200 \mathrm{ml}$
Solution of novocaine $0,5 \%-10 \mathrm{ml}$
Mix. Sterilize. Give out

Administer.
New words: solution - solutio, onis f
isotonic - isotonicus, a, um

Rx: Mercury dichloride 0,2
Carbolic acid 4,0
Lanoline
Vaseline equally 50,0
Mix to form an ointment.
Give.
Administer
New words: ointment - unguentum, in

## b) Into English:

Rp: Barii sulfatis pro Roentgeno
Da.
Signa:
New words: Roentgenus, i m - roentgen (name)
Rp: Chinini hydrochloridi 2,0
Zinci oxydi 3,0
Glycerini 25,0
Misce, fiat suspensio. Da.

Signa.
New word: suspensio,onis f - suspension
Rp:Solutionis Retinoli acetatis oleosae.
Da.
Signa
New words:solutio, onis f - solution
oleosus, a, um - oil (adl.)

## THEME 6.

CHEMICAL NOMENCLATURE. NAMES OF COMPOUND ESTERS AND SALTS OF SODIUM AND POTASSIUM.

1. Names of kalium (potassium) and natrium (sodium) salts.

These names consist of two nouns in the form of Nominative(what?): the name of a base(kation) and the words Kalium or Natrium. Borth words are declined on the $2{ }^{\text {nd }}$ declension. In Latin these 2 words are joined with hyphen (-).

NB! kalium, natrium are written with initial small letter, name of base - with capital letter
E.g. sulfacyle sodium - Sulfacylum-natrium methicilline potassium - Methicillinum-kalium
Examples of prescription lines
a) Rx: Ointment of sulfacyle sodium 15,0

Rp.: Unguenti Sulfacyli-natrii 15,0
b) Rx: Tablets of methicilline potassium

Rp.: Tabulettas Methicillini-kalii numero 20
2. Names of hydrohydrate radicals

These names are formed with the help of suffix $-\mathbf{y l}$ - and ending -ium which are joined to the root of a name of a corresponding carbohydrate.

Ethyl - Aethylium, in
Rp.: Aethylii ...
Methyl - Methylium, in
Rp.: Methylii..
Amyl - Amylium, in
Rp.: Amylii...
acetyl - Acetylium, in
Rp.: Acetylii...
Pentyl - Pentylium, in
Rp.: Pentylii..

Salicyl-Salicylium, in
Rp.: Salicylii...
3.The names of compound ethers

Latin names of compound ethers consist of two words and are formed like a names of salts while in English names of these compounds are written in two words.

## Latin names of compound ethers

A) Methylii salicylas - methyl salicylate

Rp.: Methylii salicylatis
b) Phenylii salicylas - phenyl salicylate

Rp.: Phenylii salicylatis
c) Amylii nitris - amyl nitrite

Rp.: Amylii nitritis
In the International pharmacopoeia, there can be met other names of radicals in names of compound ethers.
A) Methyliis salicylas - methyl salicylate

Rp.: Methyliis salicylatis...
b) Phenyliis salicylas - phenyl salicylate

Rp.: Phenyliis salicylatis
c) Amyliis nitris - amyl nitrite

Rp.: Amyliis nitritis...
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1.Translate the following word combinations:

themisale or theobromine natrium
powder of potasasium iodide
tablets of phenyl salicylate
Dried codeine phosphate
New words: dried - exsiccatus, a, um
Themisale or theobromine natrium
Aqueous solution of sodium usninate
New words: solution, onis f - solution
aqueous - aquosus, a, um
liquid of aluminium subacetate
New words: liquid - liquor, oris m adjuvant - adjuvans, ntis
amyl nitrite for narcosis

New words: narcosis - narcosis, is f
ointment of mercury hydrochloride in flask
New words: ointment - unguentum, in
flask - vitrum, i n

## 2.Translate the following sentence into English:

Solutio Sulfacyli-natrii Albucidum nominatur.
New words: solutio, onis f - solution
Solutio Laevomycetini-natrii in vitro nigro praescribitur
New words: solution, onis f - solution
vitrum, in - flask
niger, gra, grum - black
Norsulfazolum-natrim remedium sufaniamideum est.
New words: remedium, in - remedy
sulfanilamideus, a, um - sulfonamide, sulfur drug

## 3.Translate the following prescriptions:

## a) Into Latin

Rp: Amyl nitrite 5,0
Give out in black flask.
Administer.
New words: flask - vitrum, in
black - niger, gra, grum
Rx: Compound liniment of methyl salicylate 50,0
Give out
Administer.
New words: liniment - linimentum, in
compound - compositus, a, um
Rx: Salicylic acid 1,0
Bismuth subnitrate 3,0
Vaseline 15,
Mix to get an ointment.
Give.
Administer.
New words: ointment - unguentum, in
b) Into English:

Rp: Solutionis Sufacyli-natrii $1 \% 10 \mathrm{ml}$
Da.
Signa.

New words: solutio, onis f - solution
Rp: Chinini hydrochloridi 2,0
Zinci oxydi 3,0
Glycerini 25,0
Misce, fiat suspensio. Da.
Signa.
Rp: Theobromini-natrii cum Natrii salicylate 0,5
Phenobarbitali 0,02
Misce fiat pulvis. Da tales doses numero 6 .
Administer.

## THEME 7.

## CHEMICAL NOMENCLATURE: NOUNS AND ADJECTIVES OF THE 3RD DECLENSION IN PRESCRIPTIONS.

In chemical nomenclature adjective are also used
Adjective groups in Latin. There are 2 groups of adjectives.We differ them according to the dictionary forms.

If we see ALBUS, A, UM (white), LIBER, A, UM (free) - they are the $1^{\text {st }}$ group. In case of NATURALIS, E - the $2^{\text {nd }}$ group.

All the adjectives don't have their Gen in the dictionary. They have their gender endings - 3 endings for three genders.

All Latin names of chemical elements are neuter gender nouns with the ending -um :

Ferrum, in - iron
Iodum, in - iodine
Hydrargyrum, in - mercury
Exceptions:
Sulfur, uris n - sulfur
Phosphorus, im - phosphorus
Names of elements in prescriptions.

1. lead water - aqua Plumbi

Rp.: Aquae Plumbi 100 ml
2. ointment of zinc - unguentum Zinci

Rp.: Unguenti Zinci 10,0
3. depurated precipitated sufur - Sulfur praecipitatu depuratum

Rp.: Sulfuris praecipitati depurate 0,5
4. white ointment of mercury - unguentum Hydrargyri album

Rp.: Unguenti Hydrargyri albi 10,0

## Names of Acids

English names of acids consist of two words:
Acid is on the first place - acidum, in;
An adjective denoting the name of of the acid is on the second place.
acidum nitricum - nitric acid
acidum nitrosum - nitrous acid
An adjective denoting the name of the acid is formed on the model:


English suffixes in the names of oxygenous acids correspond to English ones:

English -ic to Latin -icum
English -ous to Latin -osum
E.g.

Boric acid - acidum boricum
Phosphorous acid - acidum phosphorosum
Hydroiodic acid - acidum hydroiodicum

## Names of Oxides

The Latin names of oxides are formed in this same rule:
The name of the chemical element in the Genetive is on the first place.
The oxide name is on the second place.
E.g.

Magnii oxydum - Magnesium oxide
The word order Latin names of oxides is similar to English one.
The $1^{\text {st }}$ place for the name of element, $2^{\text {nd }}$ for oxides
Memorize Latine Names of Oxides
oxydum, in - oxide
peroxydum, in - peroxide
hydroxydum, in - hydroxide
For example
Aluminium oxide - Aluminii oxydum
Hydrogen peroxide - Hydrogenii peroxydum
Mercury hydroxide - Hydrogenii hydoxydum
The Latin names of salts are formed in this way:

The name of the name of the salt foundation in the Genetive is on the first place.

The anion name is on the second place.
E.g.

Calcii chloridum - Calcium chloride
Magnii oxydum - Magnesium oxide
The word order in Latin names salts is similar to English one.
Comparison of Latin and English suffixes in the anion names of salts

| English suffix | Latin Suffix | Ending in <br> prescriptions |
| :---: | :---: | :---: |
| -ate | -as | -atis |
| -ite | -is | -itis |
| -ide | -idum | -idi |

E.g.:
nitrate- $\rightarrow$ nitras $\rightarrow$ nitratis
sulphate- $\rightarrow$ sulfis $\rightarrow$ sulfitis
hydrochloride- $\rightarrow$ hydrochloridum- $\rightarrow$ hydrochloridi
E.g. Some examples of the salts names in the Nominative:

Zinc sulphate - $\rightarrow$ Zinci sulfas
Potassium arsenite- $\rightarrow$ Kalii arsenis
Calcium chloride- $\rightarrow$ Calcii chloridum
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1. Write in the forms of Nom. and Gen. sing., plur:
enterosoluble tablet "Allocholum" (succus, i m + adstringens, ntis)
spring flower (flos, oris $m+$ vernalis, e)
alkaline gargle (succus, i m +adstringens, ntis)

## 2.Translate the following word combinations:

powder of zince oxide
mixture with codeine phosphate against cough
New words: mixture - mixture, ae f
cough - tussis, is $f$
oil solution of retinole acetate for children
codeine sulfate for powder
emulsion of seeds of almond with Morphine hydrpchloride
sodium chloride with sodium hydrocarbonate theobromine natrium with sodium salicylate tablets of potassium orotate for children solution of ristomycine sulfate with sugar

## 3.Translate the following sentences into English:

Chlorhexidinum in forma solutionis datur
New words:saccharum, in - sugar
remedium, i n - remedy
constituens, ntis - vehicle,excipient corrigens,ntis-corrective
Bacillus brevis antibioticum "Gramicidinum" producit
Da solutionem Tubocurarini chloride pro injectionibus intraavenosas.

## 4.Translate the following prescriptions:

a) Into Latin:

Rx: 12 tablets of acetylsalicylic acid 0,25
Dispense.
Sign.
Rx: Xycaine 1,25
Isotonic solution of Sodium chloride $0,9 \% 500 \mathrm{ml}$ Mix. Strilise! Give out Adiminster.
Rx: Citric acid 35,0
Sodium citrate 25,0
Purified water 200 ml
Mix. Give out.

Administer
b) Into English:

Rx: Hydrargyri cyanidi
Novocaini ana 0,2
Aquae pro injectionǐbus 20 ml
Misceātur. Detur.
Signetur.
New words: Novocainum, in - novocaine aqua, ae f - water injectio, onis f - injection
Recĭpe: Zinci valerianatis 0,5
Bromcamhorae 0,2

Misce, fiat pulvis
Da tales doses numero 50 in capsulis.
Signa.
Rp: Acidi salicylici 1,0
Hydrargyri amidochloridi ana 20,0
Bismuhi subnitratis ana 3,0
Vaselini
Lanolini ans 15,0
Misce fiat unguentum. Da.
Signa.

## THEME 8

NOUNS OF THE 4TH DECLENSION.

Nouns of masculine and neutral with their ending _us in Gen. sing. and gender endings -us (m) and -u (n) in Nom. sing.
E.g. $4^{\text {th }}$ declension nouns DICTIONARY FORMS: fructus, us $m$ - fruit, cornu, us n -horn

Case endings masculine

| CASUS | SINGULARIS | PLURALIS |
| :---: | :---: | :---: |
| NOM | fructus | fructus |
| GEN | fructus | fructuum |
| DAT | fructui | fructibus |
| ACC | fructum | fructus |
| ABL | fructu | fructibus |

Case endings neuter

| CASUS | SINGULARIS | PLURALIS |
| :---: | :---: | :---: |
| NOM | cornu | cornua |
| GEN | cornus | cornuum |
| DAT | cornu | cornibus |
| ACC | cornu | cornua |
| ABL | cornu | cornibus |

## NB! 3 GROUPS of nouns with ending-us in the Nominative

| II declension | III declension | IV declension |
| :--- | :--- | :--- |
| hortus, i m - garden | vulnus, eris n - wound | appetitus, us m - appetite |
| locus, i m - place | genus, eris n - gender | risus, us m - lough |

NB! Nouns to be learnt
fructus, us m - fruit
spiritus, us m - spirit, alcohol
usus, us m - usage
situs, us $m$ - place
status, us m - state
visus, us $\mathrm{m}-$ vision
lapsus, us m - mistake
exitus, us $m$ - exit
gustus, us $\mathrm{m}-$ taste
sensus, us m - sense
cornu, us n - horn
manus, us f - hand

Nouns of the $4^{\text {th }}$ declension in prescriptions
spiritus, us m - alcohol
spiritus aethylicus $=$ spiritus Vini - ethylic alcohol $=$ alcohol of vine
spiritus aethylicus rectificatus $=$ spiritus Vini rectificatus - rectificated ethylic alcohol
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1. Write in the forms of Nom. and Gen. sing., plur:
sweet fruit (fructus, us $m+$ dulcis, e)
external usage (usus, us $m+$ externus, a, um)
high oak (Quercus, us $\mathrm{f}+$ altus, a, um)

## 2. Translate the following word combinations:

dry fruits of rose for powder
New words: powder - pulvis, eris m
dry - siccus, a, um
rose - Rosa, ae f
emulsion of streptocide for external usage
New words: emulsion - emulsum, i n
usage - usus, us $m$
external - externus, a, um
decoction from fruits of plum
New words: decotion - decoctum, i n
fruit - fructus, us $m$
plum - Prunus, if
cut fruits of hawthorn
New words: fruit - fructus, us m
cut-concisus, a, um
hawthorn - Crataegus, if
tablets of potassium orotate for internal usage
New words: tablet - tabuletta, ae f
usage - usus, us $m$
internal - internus, a, um
spirituous solution of formic acid or formic alcohol
New words: solution - solution, onis f
spirituous - spirituosus, a, um
acid - acidum, i n
formic - formicus, a, um
alcohol - spiritus, us $m$
or - seu
decoction of bark of oak with sugar
New words: decoction - decoctum, i n
bark - cortex, icis m
oak - Quercus, us f
sugar - Saccharum, in
ointments for external usage in pots
New words: ointment - unguentum, in
usage - usus, us m
external - externus, a, um
pot-olla, ae f
syrup of fresh fruits of raspberry
New words: syrup - sirupus, i m
fruit - fructus, us m
fresh - recens, ntis
raspberry - Rubus (i) idaeus (i)

## 3.Translate the following sentence into English:

Animalia nonnulla cornua habent.
New words: animale, is $\mathrm{n}-$ animal
nonnullus, a, um - some
cornu, us n - horn
habere - to have
Spiritus saponatus compositus spiritus Vini rectificatum continet.
New words: spiritus, us m - alcohol
saponatus, a, um - soap (adj.)
compositus, a, um - compound
Vinum, in - vine
rectificatus, a, um - rectified
continere - to contain
E fructibus Capsici tinctura et emplastrum praeparantur
New words: fructus, us m - fruits
Capsicum, i $n$ - red pepper
tincture, ae f - tincture
emplastrum, in-plaster
praeparare - to prepare

## 4. Translate the following prescriptions:

## a) Into Latin:

Rx: Brilliant green 0,3
Ethyl alcohol $70 \%-10 \mathrm{ml}$
Purified water 20 ml
Mix. Give out

Adiminster.
New word: brilliant green - Viride nitens alcohol - spiritus, us $m$ ethyl - aethylicus, a, um water - aqua, ae f purified - purificatus, a, um
Rx: Decoction of fruits of buckthorn 20,0-200 ml
Syrup of rhubarb 20,0
Mix. Give out.

Administer
New word: decoction - decoctum, i n
fruit - fructus, us m
buckthorn - Frangula, ae f
syrup - sirupus, i m
rhubarb - Rheum, in
Rx : Spirituous solution of iodine $5 \%$ for internal usage -15 ml
Give out.

Administer.

## b) Into English:

Recǐpe: Infusi fructuum Juniperi $10,0-200 \mathrm{ml}$
Da in vitro nigro.
Signa.
New words: infusum, in - infusion
fructus, us m - fruit
Juniperus, if - juniper
Recĭpe: Phenylii salicylatis 3,0
Spiritus aethylici 70\%-20 ml
Vaselini ad 30,0
Misce fiat unguentum. Da.
Signa.
New words: spiritus, us m-alcohol
aethylicus, a, um - ethylic
unguentum, i n - ointment
Rech̆pe: Sulfuris praecipitati 3,0
Spiritus camphorati 6,0
Olei Ricini 1,0
Solutionis Acidi borici 2\%
Spiritus aethylici $70 \%$ ana 50 ml
Misceātur. Detur.
Signetur.
New words: praecipitatus, a, um -precipitade
spiritus, us m - alcohol
camphoratus, a, um - camphor (adj.)
oleum, i n - oil
Ricinus, i m - castor oil plant
solutio, onis f - solution
acidum, in - acid
spiritus, in-alcohol

THEME 9.
NOUNS OF THE 5TH DECLENSION.

Nouns of female gender with ending - EI in Gen. Sing. and ending - ES in Nom. Sing. belong to the $5^{\text {th }}$ declension of nouns.
E.g.
res, rei, f affair, thing
dies, diei m, f day
scabies, scabiei, f itch
rabies,ei f hydrophoby
species, speciei, f 1) species - in botany 2 ) herbs (medicinal form)
Case endings

| CASUS | SINGULARIS | PLURALIS |
| :--- | :--- | :--- |
| NOM | speci-es | speci-es |
| GEN | speci-ei | speci-erum |
| DAT | speci-ei | speci-ebus |
| ACC | speci-em | speci-es |
| ABL | speci-e | speci-ebus |

The word "species" as "herbs, species" is used only in its plural form. The strict meaning for species is "mixture of dried herbs, leaves, flowers, fruits etc. In this case adjectives coordinated with the noun "species" must be used in plural form Latin deals with 2 groups of adjectives:

1) Adjectives with endings -us (m), $\mathbf{- a}(\mathbf{f})$, um (n) in the dictionary aromaticus, a, um - aromatic
In the case of the $1^{\text {st }}$ group adjectives, we must use the ending $-\mathbf{a}$ (due to femininum for "species"). But we know that in pharmaceutical terminology this noun is used in plural form, so we must know the plural for an adjective. According to the table, it is -ae.
Species ( $f$, pl) aromaticae ( $f$, pl) - aromatic species (herbs)
2) Adjectives with endings -is(f),-is(m),-e(n) in the dictionary pectoralis, e-pectoral
In the case of the $2^{\text {nd }}$ group adjectives we must the use ending -is (due to femininum for "species"). But we know that in pharmaceutical terminology this noun is used in plural form, so we must know plural for adjective. According to the table, it is -es
Species ( $f$, pl) pectoral (f, pl)- Pectoral species (herbs)

## E.g.

species amarae bitter species(herbs ) species for appetite
species cholagogae
species diaphoreticae
species relaxantes
species ad cataplasmata
species ad gargarismata
cholagogue species(herb) diaphoretic species(herbs) relaxant species(herb) species(herbs) for poultices species(herbs) for gargles

## NOUNS OF THE $5^{\text {th }}$ DECLENSION IN PRESCRIPTIONS

1) The noun dies, diei $m, f$ - day- masculine gender in pharmaceutical terminology, in common life it is female gender.
Names of remedy doses
Dosis pro dosi - dose for one dose, single dose
Dosis pro die - dosis for a day, daily dose
2) The noun species, eif-1) species (in botany); 2) herbs, species

The herbs(species are the mixture of some species of dried and cut medicinal plants or only parts of them (flowers, herb, leaves, roots, bark etc) from which infusions or decoctions are prepared.

NB! Lexical minimum

| species amarae | Bitter species (herbs) |
| :--- | :--- |
| species antiasthmaticae | Antiasthmatic species(herbs) |
| species antihaemorrhoidales | Antihemorhoidal species (herbs) |
| species cardiacae | Heart species(herbs) |
| species diaphoreticae | Diaphoretic, sudorific species (herbs) |
| species diureticae | Diuretic species(herbs) |
| species gastricae | Gastric species (herbs) |
| species sedativae | Sedative, calmative species (herbs) |
| species laxantes | Laxative, purgative species(herbs) |
| species pectorales | Pectoral species(herbs) |
| species polyvitaminicae | Polyvitaminic species(herbs) |
| species stomachicae | gastric species(herbs) |

NB! We must use Genetivus pluralis for the names of species

1) Names with the $1^{\text {st }}$ group adjectives

Nom.pl. species ...-ae
Gen.pl. specierum ...-arum
Gastric species(herbs) - species gastricae
Recipe:Specierum gastricarum 100,0
2) Names with the 2 nd $^{t}$ group adjectives

Nom.pl. species ...-es
Gen.pl. specierum ...-ium
Laxative species(herbs) - species laxantes
Recipe: Specierm laxantium 100,0

NB! Mix to get species (herbs) - Misce, fiant species
3) contra scabiem - against itch
unguentum contra scabiem - ointment against itch contra rabiem - against hydrophoby
vaccinum contra rabiem - vaccine against hydrophoby References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Write in the forms of Nom. and Gen. sing., plur:

common affair (res, rei $f+$ publicus, a, um)
long day (dies, ei f + longus, a, um)
botanic species (species, ei $\mathrm{f}+$ botanicus, a , um)

## 2. Translate the following word combinations:

dry fruits of Rose for aromatic herbs
New words: herbs - species, erum f
dry - siccus, a, um
rose - Rosa, ae f
aromatic - aromaticus, a, um
laxative herbs with root of rhubarb
New words: herbs - species, erum f
laxative - laxativus, a, um
root - radix, icis f
rhubarb - Rheum, in
tablets of codeine phosphate for daily dose (doses for a day)
New words: tablet - tabuletta, ae f
day - dies,ei m, f cut fruits of hawthorn for cardiac species (herbs)
New words: fruit - fructus, us $m$
cut - concisus, a, um
hawthorn - Crataegus, if
species (herbs) - species, erum f
cardiac - cardiacus, a, um
injections against hydrophoby
New words: injection - injection,onis f
hydrophoby - hydrophobia, ae f
spirituous solution of formic acid for daily dose
New words: solution - solution, onis f
spirituous - spirituosus, a, um
acid - acidum, in
formic - formicus, a, um
doses - dosis, is f
daily - day (adj)

## 3. Translate the following sentence into English:

a)Praepara species (herbs) pectorales pro infantibus.

New words: species(herbs) - species, erum f
pectoralis, e - pectoral infans, ntis $m, \mathrm{f}-$ child praeparare - to prepare
b) Dosis maxima Theophyllini pro adultibus1,2 pro die est.

New words: dosis, is $\mathrm{f}-$ dose
maximus, a, um - maximal
aduls, ltis $\mathrm{m}, \mathrm{f}$ - adult person
dies, ei $\mathrm{m}, \mathrm{f}$ - day

## 4. Translate the following prescriptions into Latin:

a) Rx : Leaves of water pepper 150,0

Herb of horsetail
Root of lark spoor
Flowers of camomie
Leaves of plantain equally 50,0
Mix to get herbs. Give out.
Adiminster.
New word: leaf - folium, in
water pepper - Polygonum hydropiper (eris)
herb - herba, ae f
horsetail - Equisetum, in
flower - flos, floris $m$
chamomile - Chamomilla, ae f
plantain - Plantago, inis f
b) Rx: Pectoral herbs 100,0

Give out in paper.
Administer.
New word: herbs - species, erum f
pectoral - pectoralis, e
paper - charta, aef
c) Rx: Antihaemorrhoidal herbs 100,0

Give out.
Administer.
New words: herbs - species, erum f
antihaemorrhoial - antihaemorrhoidalis,e

THEME 10.
ADJECTIVES. DEGREES OF COMPARISON.

There are III degrees of comparison in English and Latin:

POSITIVE DEGREE
(pure)
COMPARATIVE DEGREE (purer)
SUPERLATIVE DEGREE (the purest)
Gradus comparatīvus (comparative degree)
NB! All the adjectives in their Comparative belong to the $2^{\text {st }}$ group of adjectives (adjectives $3^{\text {rd }}$ declension with endings -IOR, -IUS (their Gen. sing -IORIS). They are declined as the nouns of th $3^{\text {rd }}$ declension of consonant type. Compare with nouns of th $3^{\text {rd }}$ declension: liquor,oris $m$, corpus, oris $n$.

RULE OF FORMATION

|  | Nom. Sing. | Gen. Sing. |
| :--- | :--- | :--- |
| stem + | -ior (m, f) |  |
|  |  |  |

E.g.
purus, a, um (pure) - stem pur-+ior, ius - purior, ius (purer)
subtilis, e (fine, small) - stem subtil-+ior, ius - subtilior, ius (finer)
simplex, icis (simple) - stem simplic-+ior, ius - simplicior, ius (more simple)

Gradus superlativus (superlative degree)
NB: All the adjective in their Superlativus belong to the $1^{\text {st }}$ group of adjectives (adjectives of 1-2 declensions with endings -US, -A, -UM

RULES OF FORMATION

|  | suffix | ending |
| :---: | :---: | :---: |
| !!!stem | -issimus, a, um |  |
| full form of nom. M -er | -rimus, a, um- |  |

Niger, gra, grum (black) - stem niger-+-rimus, $a$, um = nigerrimus, a, um
Simplex, icis (simple) - stem simplic+issimus, a, um= simplicissimus, a, um (the simplest)
Subtilis, e (fine, small) - stem subtil-+-issimus, a, um= subtilissimus, a, um NB! IRREGULAR DEGREES OF COMPARISON

| Gradus positīvus | Gradus comparativus | Gradus superlatīvus |
| :---: | :---: | :--- |
| bonus, a, um (good) | melior, ius | optĭmus, a, um |
| malus, a, um (bad) | pejor, jus | pessĭmus, a, um |
| magnus, a, um (big) | major, jus | maxı̆mus, a, um |
| parvus, a, um (small) | minor, us | minı̆mus, a, um |
| multus, a, um (a lot of) | plus | plurı̆mus, a, um |

## Degrees of comparison in prescriptions

1. Plantago major (greater plantain)

Rp.: Foliorum Plantaginis majoris 100,0
Rx: Leaves of greater plantain 100,0
2.Chelidonium majus (celandine)

Rp.: Herbae Chelidonii majoris 100,0
Rx: Herb of celandine 100,0
3. Pulvis subtilissimus (fine powder)

Misce fiat pulvis subtilissimus
Mix to get the finest powder.
4. the purest oil of Vaseline (oleum Vaselini purissimum)

Rp:Olei Vaselini purissimu 100m
Rx: The purest Vaseline oil 100 ml
5.Vaselinum optimum pro oculis- the best vaseline for the eyes

Rp: Vaselini optimi pro oculis 10,0
Rx: The best vaseline for eyes
References: [Compulsory and Supplementary].

## CHECK YOURSELF

1. Translate the following word combinations, form comparative and superlative degrees of adjectives:
bitter decoction (bitter - amarus, a, um, decoction - decoctum,in)
sweet fruit (fruit - fructus, us m, sweet - dulcis, e)
fine powder (powder - pulvis, eris m, fine - subtilis,e)
fine powder (powder - pulvis, eris m, fine - subtilis, e)
white clay (clay - bolus, i f, white - albus, a, um)
bitter rhizome (rhizome - rhizoma, atis n, bitter - amarus, a, um)
red flower (flower - flos, floris m, red - ruber, bra, brum)
solid crystal (crystal - crystallus, if, solid - durus, a, um)
soft remedy (remedy - remedium, in, soft - mollis, e)

## 2.Translate the following word combinations:

more solid medicinal forms
New words: form - forma, ae f
medicinal - medicinalis,e
solid - durus, a, um
very yellow juice of lemon
New words: juice - succus, i m
yellow - flavus, a, um
Lemon - Citrus, i m
The largest dose of codeine phosphate for daily dose (doses for a day).
New words: tablet - tabuletta, ae f
day - dies, ei m, f
large - magnus, a, um
whiter clay for ointment
New words: clay - bolus, if,
white - albus, a, um
the finest powder of dimedrole
New words: powder - pulvis, eris m
fine - subtilis, e
more pure vaseline for daily dose
New words: pure - purus, a, um
doses - dosis, is f
daily - day (adj)
the most solid bark of oak for stomach herbs (species)
New words: bark - cortex, icis m
oak - Quercus, us f
herbs - species, erum $f$
stomach - gastricus, a, um
solid - durus, a, um
more small box with antiastmatic herbs (species)
New words: box - scatula, ae f
herbs - species,erumf
antiasthmatic - antiasthmaticus, a, um
small - parvus, a, um
more soft ointment or liniment
New words: ointment - unguentum, in
soft - mollis, e
liniment - linimentum, in
or - seu

## 3.Translate the following sentence into English:

Pharmaceuta Talco purissimo pilulas obducit.
New words: pharmaceuta, ae m - pharmacist
purus, a, um - pure
pilula, ae f - pill
obducere - to strew
Remedia amarissima in capsulis operculatis dantur.
New words: remedium, in - remedy
amarus, a, um - bitter
capsula, ae f - capsule
operculatus, a, um - closed
Dosis maxima Theophyllini pro adultis1,2 pro die est.
New words: dosis, is $\mathrm{f}-$ dose
maximus, a, um - the largest
aduls, lyis $\mathrm{m}, \mathrm{f}$ - adult person
dies, ei $m, f$ day
est - is

## 4. Translate the following prescriptions:

## a) Into Latin:

Rx: The purest oil of Vaseline 200 ml
Oil of pepper mint III drops
Mix. Give out.

Adiminster.
New word: oil - oleum, in
pure - purus, a, um
peppermint - Mentha(ae) piperita(ae)
Rx: The coarsest powder of streptocide 10,0
Give out.
Administer.
New word: coarse - grossus, a, um
Rx: Herb of larger celandine 20,0
Leaves of peppermint 10,0
Mix. Give out.

Administer.
New words:herb - herba, ae f
large - magnus, a, um
celandine - Chelidonium, in
leaf - folium, in
peppermint - Mentha piperita

## b) Into English:

Recĭpe: Streptocidi subtilissimi 2,0
Vaselini 10,0
Misce, fiat unguentum. Da. Signa.
New words: subtilis, e - fine unguentum, in-ointment
Recĭpe: Infusi foliorum Plantaginis majoris 10,0 - 200 ml Misce. Da.
Signa.
New words: infusum, in - infusion
folium, i n - leaf
Plantago, inis f - plantain
major, jus - larger
Recǐpe: Streptocidi 5,0
Penicillini 200000 U
Misce, fiat pulvis sibtilissimus. Da.

Signa.
New words: pulvis, eris m - powder subtilis, e - fine

## THEME 11.

## NAMES OF FLUID MEDICINAL FORMS. THE PRESCRIPTION.

Fluid medicinal forms comprise:
solutions - solutiōnes (solutio, ōnis f)
solutions for injections solutiōnes pro injectionibus
infusions - infūsa (infūsum, i n)
decoctions - decocta (decoctum, in)
emulsions - emulsa (emulsum, in)
suspensions - suspensiōnes (suspensio, ōnis f)
mucilages mucilağines (mucilāgo, innis f)
mixtures mixtūrae (mixtūra, ae f)
tinctures tinctūrae (tinctūra, ae f)
drops guttae (gutta, ae f)
balsams balsăma (balsămum, in)

Solutions - Solutiōnes (solutio, ōnis f)
Solution is a fluid preparation that contains one or more chemical substances dissolved.

Recǐpe: Solutiōnis Natrii bromǐdi 2\% 180 ml Da.
Signa. Take 1 tablespoonful thrice daily.
Infusions - Infūsa (infūsum, i n)
Infusion is the soaking of a solid substance in a solvent, such as water, for the purpose of extracting an active ingredient.

Recípe: Infūsi foliōrum Sennae ex $10,0: 150 \mathrm{ml}$
Da.
Signa. Take 1 tablespoonful in the morning and at bedtime.

Decoctions - Decocta (decoctum, in)
Decoctions are solutions of the active (soluble) constituents of crude drugs prepared by boiling the drug in water and straining the resulting solution.

Recǐpe: Decocti cortǐcis Frangŭlae ex $10,0-200 \mathrm{ml}$
Da.

Signa. Take 1 tablespoonful in the morning and at bedtime.

Mixtures - Mixtūrae (mixtūra, ae f)
Mixtures are aqueous liquids containing insoluble solids in suspension and intended for internal use.

Recĭpe: Decocti radīcis Inŭlae ex 20,0-200 ml
Sirŭpi Glycyrrhīzae 10 ml
Misce.
Da.
Signa. Take 1 tablespoonful three times daily.

Drops - Guttae (gutta, ae f)
Drops are various solutions and mixtures dosed in drops.
Recĭpe: Tinctūrae Belladonnae 20 ml
Da.
Signa. Take 10 drops three times weekly.

Suspensions - Suspensiōnes (suspensio, $\bar{o}$ nis f)
Suspensions are preparations of finely divided undissolved drugs dispersed in a liquid medium.

Recĭpe: Suspensiōnis Nifuroxazidi 90 ml Da.
Signa. Take 1 tablespoonful three times daily. Shake before using.

Tinctures - Tinctūrae (tinctūra, ae f)
Tinctures are alcoholic or hydroalcoholic solutions prepared from vegetable materials or chemical substances.

Recĭpe: Tinctūrae Valeriānae
Tinctūrae Convallāriae ana 10 ml
Misce.
Da.
Signa. Take 20 drops twice daily.

Extracts - Extracta (extractum, in)
Extracts are concentrated preparations from animal or vegetable drugs obtained by removal of the active constituents with a suitable solvent or solvent mixture, evaporation of all or nearly all the solvent, and the adjustment of the residual mass or powder to prescribed standards.

Recĭpe: Olei Ricĭni 15 ml

Gelatōsae $7,5 \mathrm{ml}$
Aquae purificātae ad 150 ml
Misce, fiat emulsum.
Da.
Signa. Should be taken with tablespoonfuls within 30 minutes.

## Mucilages - Mucilagines (mucilago, innis f)

Mucilages are viscous adhesive preparations made by dissolving or suspending exudates from certain trees and shrubs in water (tragacanth mucilage). Recǐpe: Chlorāli hydrātis 3,0

Mucilaginis Amy̆li 20 ml
Aquae purificātae ad 90 ml
Misce.
Da.
Signa. Take a tablespoonful at bedtime
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Translate into Latin in nominative and genetive forms:

oil iodine solution, ethylic alcohol, drops "Sofradex".
New word: alcohol - spiritus, us m
liquid extract of passiflora, salicylic acid solution in alcohol, decoction of chamomile flowers.
New words: passiflora - Passiflora, ae f
in alcohol - spirituosus, a, um
sodium chloride isotonic solution, infusion of nettle leaves, water of bitter almonds
New words: nettle - Urtica, ae f
almond - Amygdala, ae f
bitter - amarus, a, um

## 2. Translate into Englush the following prescription:

Reč̌pe: Decocti radīcis Althaeae $10,0-100 \mathrm{ml}$
Da in vitro nigro.
Signa.
New words: Althaea, ae f - marsh mallow
vitrum, in-glass
niger, gra, grum - black
Recĭpe: Hydrargyri cyanidi

Novocaini ana 0,2
Aquae pro injectionǐbus 20 ml
Misceātur. Detur.
Signetur.
Recǐpe: Extracti Aloes fluidi 1 ml
Dentur tales doses numěro 10 in ampullis
Signetur.

## 3. Translate into Latin the following prescription:

Rx: Aluminium hydroxide suspension (Suspension of aluminium hydroxide) $4 \%-200 \mathrm{ml}$
To dispense.
To sign.
Rx: Ether tincture of valerian
Tincture of lily of valley equal 10 ml
Dispense.
Sign.
New words: ether - Aether, eris m
lily of valley - Convallaria, ae f
Rx: Codeine phosphate 0,2
Infusion of adonis herb from $6,0-180 \mathrm{ml}$
Sodium bromide 6,0
Mix. Dispense.

Sign.
New words: adonis - Adonis, idis m

## THEME 12.

## NAMES OF SOFT MEDICINAL FORMS. THE PRESCRIPTION.

## Soft medicinal forms comprise:

Gels - gela (gelum, in)
Ointments - unguenta (unguentum, in)
Pastes - pastae (pasta, ae f)
Liniments -linimenta (linimentum, in)
Plasters - emplastra (emplastrum, in)

Gels - gela (gelum, in)
Gels are soft medicinal forms for topical administration.
Recĭpe: Gelumi "Titriŏlum" 25,0

Da.
Signa. Apply to the skin.

Ointments - (unguentum, in)
Ointments are medicated semisolid preparations for external application to the skin or mucous membranes.
Recĭpe: Unguenti Hydrargy̆ri oxy̆di flavi 10,0
Da.
Signa. Apply to the affected skin areas.
Officinal ointments comprise: zinc ointment (unguentum Zinci), yellow mercury ointment (unguentum Hydrargy̆ri flavum), white mercury ointment (unguentum Hydrargy̆ri album), glycerine ointment (unguentum Glycerīni), naphthalanic ointment (unguentum Naphthalāni), xeroform ointment (unguentum Xeroformii).

Pastes - Pastae (pasta, ae f)
Pastes are stiff-drying ointment - like preparations for external application.
The following substances are used as fillers: talk (Talcum), white clay (Bolus alba), wheat starch (Amy̆lum Tritici), maize starch (Amy̆lum May̆dis), potato starch (Amy̆lum Solāni), rice starch (Amy̆lum Orÿzae), lycopodium (Lycopodium). Recĭpe: Anaethesīni 5,0

Menthōli 0,5
Talci 12,5
Vaselīni ad 50,0
Misce, fiat pasta
Da.
Signa. Apply to the affected skin areas.

## Liniments - Linimenta (linimentum, in)

Liniments are fluid preparations for application to the skin by friction.
Form-building substances used in liniment production are plant and mineral oils oleum Lini (linseed or flaxseed oil), oleum Hyoscyămi (Hyoscyamus oil), oleum Olivārum (olive oil), oleum Amygdalārum (Almond oil), oleum Helianthi (Sunflower oil), oleum Persicōrum (Peach-kerned or Peach oil), oleum Vaselīni (Vaseline oil), oleum Ricīni (Ricin oil), Pix liquǐda (tar), Ichthyōlum (ichthyol or ichthammol) and others.
Recĭpe: Linimenti Synthomycīni 10\% - 25,0
Da.
Signa. Apply to the wound margins.

## Officinal liniments

Linimentum Aloës - Aloe liniment
Linimentum balsamĭcum Wishnewsky - Vyshnevsky Balsamic Liniment
Linimentum "Sanittas" - liniment "Sanitas"
Linimentum Streptocidi 5\% - Streptocide liniment
Linimentum "Alorom" - liniment "Alorom"
Linimentum "Capsici camphorātum" - pepper-camphoric liniment
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Translate into Latin in nominative and genetive forms:

ophthalmic ointment of prednisolone, composite plaster of lead, linimentum balsamĭcum Wishnewsky.
New word: composite - compositus, a, um
Paste of zinc, oil of vaseline, ointment "Cremgen".
New word: the purest - purissimus, a, um
synthomycine liniment, balsamum "Gold Star", plaster of pepper Capsicum.
New word: pepper capsicum - Capsicum, in

## 2. Translate into Englush the following prescription:

Recĭpe: Dermatoli
Methylii salicylatis
Olei Lini ana 15,0
Misce, fiat linimentum. Da.
Signa.
New word: Linum, i n - flax
Recĭpe: Emplastri Plumbi simplicis 50,0
Detur.
Signetur.
Recĭpe: Unguenti Hydrargyri oxydi flavi 10,0
Detur in vitro fusco.
Signetur.
New words: vitrum, i n - glass
fuscus, a, um - dark

## 3. Translate into Latin the following prescription:

Rx: Gel "Titriolum" 25,0
To dispense.

> To sign.
> Rx: Salicilic acid
> Zinc oxide 12,0
> Vaseline up to 50,0
> Mix to form a paste.
> Dispense.
> Sign.
> Rx: Composite liniment of streptocide 50,0
> Dispense.
> Sign.
> New word: composite - compositus, a, um

## THEME 13.

NAMES OF SOLID MEDICINAL FORMS. THE PRESCRIPTION.

Solid medicinal forms comprise:
Powders pulveres (pulvis, ěris m)
Capsules capsulae (capsŭla, ae f)
Tablets tabulettae (tabuletta, ae f)
Dragee dragee (dragee, $n$ is not declined)
Suppositories suppositoria (suppositorium, i n)
Herbal blends species (species, erum f(pl))
Powders - Pulvĕres (pulvis, ěris $m$ )
Powders are solid medicinal forms containing dry, powdery, and finely divided substances, intended for internal and external administration.
Recĭpe: Anaesthesīni subtilissĭmi 50,0
Da.
Signa. Powder wounded surface.

Capsules - Capsŭlae (capsŭla, ae f)
Capsules are dosage forms made of hard or soft gelatin, and containing a unit dose of a drug formulation.
Recĭpe: Olei jecorris Aselli 1,0
Da tales doses numěro 30 in capsŭlis gelatinōsis elastǐcis.
Signa. Take 3 capsules three times daily.

## Tablets - Tabulettae (tabuletta, ae f)

Tablets are solid medicinal forms for internal use (ad usum internum) and for external use (ad usum externum) after previous dissolving (tabulettae solubĭles). Tablets for sublingual use are called tabulettae sublinguāles; implant tablets (for subcutaneous use) are termed tabulettae implantantae seu implantabulettae; vaginal tablets are entitled tabulettae vagināles.
Recípe: Tabulettas Analgīni 0,5 numero 10
Da tales doses numěro 10
Signa. 1 tablet for headache

## Dragee - (Dragee)

Dragee is a sugar-coated solid dosage form for internal use made by recovering granules with medicinal and auxiliary (talk, chocolate, sugar, etc.) substances.
Recipe: Dragee Diazolīni 0,005 numěro 20
Da.
Signa.

## Suppositories - Suppositoria (suppositorium, in)

Suppository is a solid dosage form that is prepared in various weights and shapes suitable for insertion into a body cavity (usually rectum or vagina), where it melts, dissolves, or disintigrates to produce a desired medicinal effect.
Recĭpe: Dimedrōli 0,01
Olei Cacao 3,0
Misce, fiat suppositorium rectāle.
Da tales doses numěro 12 .
Signa. Insert 1 suppository into the rectum at bedtime, previously removing the covering.

Herbal blends - Species, ērum f(pl)
Herbal blend is a medicinal form consisting of coarse herb powder (flowers, leaves, roots
Recǐpe: Herbae Adonǐdis vernālis 2,0
Rhizomătis cum radicǐbus Valeriānae 1,5
Misce, fiant species.
Da tales doses numero 10 .
Signa. Boil a package in one glass of water and infuse for 30 minutes.
References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Translate into Latin in nominative and genetive forms:

composite powder of sweet root, bitter herbal blend, coated tablets "Allochol".
New word: sweet root - Glycyrrhiza, ae f diuretic herbal blend, suppositories "Anuzol", tablet of phenazepame. chamomile flowers, coated tablet of pancreatin 8000, pectoral herbal blend.

## 2. Translate into English the following prescription:

Recǐpe: Platyphyllini hydrotatratis 0,005
Dibazoli 0,02
Sacchari 0,3
Misce, fiat pulvis. Da tales doses numěro 12.
Signa.
New word: saccharum, in - sugar
Recĭpe: Tabulettas Tetracyclini hydrochloridi
cum Nystatino 0,05 numěro 20
Detur.
Signetur.
Recĭpe: Speciērum antiasthmaticārum 100,0
Detur in sacculo chartaceo.
Signetur.
New words: sacculus, in - sac
chartaceus, a, um - paper (adj.)

## 3. Translate into Latin the following prescription:

Rx: Dragee "Undevit" N 50
To dispense.
To sign.
Rx: Currants fruits
Nettle leaves equally 50,0
Mix to form herbal blend
Dispense.
Sign.
New words: currant - Ribes, is $n$
nettle - Urtīca, ae f
Rx: Calcium carbonate 0,05
Calcium glycerophosphate 0,02
Mix to form a powder.

Dispense such doses in number 12.
Sign.

## THEME 14.

## ABBREVIATIONS IN PRESCRIPTIONS.

When writing prescriptions doctors widely use abbreviations of some and even the whole sentences. There are some rules for abbreviations:

1. One may abbreviate the medicinal forms, plants' organs and recipe phrases;
2. There may not be shortened names of close in their meanings ingredients because otherwise, it will be impossible to define exactly when the remedy is prescribed.
3. The abbreviation usually ends in a consonant.

NB! Some recipe expressions may be maximumly abbreviated.

| Abbreviation | Full form | Translation |
| :--- | :--- | :--- |
| 'aa | Ana | So much of each |
| Ac., acid. | Acidum | Acid |
| Aq. | Aqua | Water |
| Aq.purify. | Aqua purificata | Purified water |
| Bol. | Bolus | White bole, kaolin |
| But. | Butyrum | Butter |
| Comp., cps. | Compositus, a, um | Composed, compound |
| Concentr. | Concentratus,a,um | Concentrated |
| Cort. | Cortex | Cortex,bark |
| D. | Da. Detur. Dentur. | Give. Let it be given/ <br> Let them be given. <br> Dec. dct. <br> Decoctum Decoction |
| Depur. | Depuratus, a, um | Depurated |
| Dil. | Dilutus, a, um | Diluted |
| D.t.d.N | Da (dentur) tales doses | Give...such doses |
| numero | Divide in partes | Divide into equal parts |
| Div. in part. | Dil\| |  |


| aeq. | aequales |  |
| :---: | :---: | :---: |
| Empl. | Emplastrum | Plaster |
| Emuls. | Emulsum | Emulsion |
| Extr. | Extractumj | Extract |
| f. | fiat, fiant | Let there be made |
| Fl., flor. | Flos | Flower |
| Fluid. | Fluidus, a, um | Fluid |
| Fol. | Folium | Leaf |
| Fr., fruct. | Fructus | Fruit |
| Glod.vagin. | Globules vaginalis | Vaginal globule |
| Gran. | Granulum | Granule |
| Gtt., gtts. | Gutta | Drop, drops |
| Hb., herb. | Herba | Herb |
| Inf. | Infusum | Infusion |
| In amp. | In ampullis | In ampules |
| In caps. gel. | In capsulis gelatinosis | In gelatinous capsules |
| In caps. Operc. | In capsules operculatis | In lidden capsules |
| In ch. cer. | In charta cerata | Inh cerated paper |
| In oll. | In olla | In wide mouthed bottle |
| In lag. | In lagena | In a flask, bottle |
| In scat. | In scatula | In a box |
| In sacc.chart. | In sacculo chartaceo In sacculis chartaceis | In paper saccule <br> In paper saccules |
| In tab. obd. | In tabulettis obductis | In coated tablets |
| In vitr.fusc. | In vitro fusco | In dark bottle |
| In vitr. nigr. | In vitro nigro | In black bottle |
| Linim. | Linimentum | Liniment |
| Liq. | Liquor | Liquid, fluid |


| M. | Misce. Misceatur. | Mix. Let it be mixed |
| :---: | :---: | :---: |
| m.pil. | Massa pilularum | Mass of pills |
| Mucil. | Mucilage | Mucilage |
| Ol. | Oleum | Oil |
| Oll. | Olla | Wide mothed bottle |
| Past. | Pasta | Paste |
| Pct., praec. | Praecipitatus, a, um | Precipitade |
| Pil. | Pilula | Pill |
| ero infant. | Pro infantibus | For children |
| q.s. | Quantum satis | As much as required, as much as suffices |
| R., rad. | Radix | Root |
| Rec. | Rectificatus,a,um | Rectified |
| Rhiz., rh. | Rhizoma | Rhizome |
| Rp.: | Recipe: | Take(Rx) |
| S.: | Sigan. Signetur. | Label. Le it be labeled. |
| Sem. | Semen | Seed |
| Sicc. | Siccus, a, um | Dry |
| Simpl. | Simplex | Simple |
| Sir. | Sirupus | Syrup |
| Sol. | Solution | Solution |
| Spec. | Species | Species, tea |
| Spir. | Spiritus | Spirit |
| Spiss. | Spissus | Thick, spissated |
| Steril. | Sterilsa! Steruilisetur! | Sterilize! Let it be sterilized. |
| Succ. | Succus | Juice |
| Supp. | Suppositorium | Suppository |
| Supp. vagin. | Suppositorium | Vaginal suppository |


|  | vaginale |  |
| :--- | :--- | :--- |
| Susp. | Suspensio | Suspension |
| Tab. | Tabuletta | Tablet |
| t-ra, tinct., tct. | Tinctura | Tincture |
| Tr. | Tritus, a, um | Triturated |
| Tub. | Tuba | Tube |
| Ung | Unguentum | Ointment |
| V. | Verte! | Turn over! |
| Vitr. | Vitrum. | Bottle. |

References: [Compulsory and Supplementary].

## CHECK YOURSELF

## 1. Write without abbreviation. Translate into English:

Rp: Inf. Rad. Valerianae $15,0-200 \mathrm{ml}$
Phenobarbitali 0,2
Natrii bromidi 3,0
M. D.
S.

Rp: Chlorāli hydrātis 3,0
Mucil. Amy̆li 20 ml
Aq. purif. ad 90 ml
Rp: Tab. Trypsini crystallisati $0,01 \mathrm{~N} 10$
D.
S.
2. Translate a prescription into Latin in its abbreviated form:

Rx: Etherous tincture of valerian
Tincture of lily of valley equal 10 ml
Dispense.
Sign.
Rx: Powder of Rhubarb root 0,03
Magnium oxide 0,02
Mix to get powder. Give out.
Administer.
Rx: Euphylline 0,3
Oil of Cocoa 3,0
Mix to get rectal suppository. Give out such 12 doses.
Administer.

## THEME 15. <br> FINAL TEST.

For successful completion of the discipline, one needs to learn information from the textbook.

## Textbook:

Svetlichnaya Y.I. Latin for Pharmacy Students: Textbook / Y.I. Svetlichnaya, I.A. Tolok, E.A. Volobuyeva. - Kharkiv: NUPh, 2006. - 212 p.

## EXAMPLE OF TASKS FOR PRACTICAL SKILLS

## 1. Translate in Nom. and. Gen. Singular and Plural

green water (aqua, ae $\mathrm{f}+$ viridis, e); internal use (usus, us $\mathrm{m}+$ internus, a, um)
2. Translate pharmaceutical terms in Nom. and Gen. singularis
a) infusion of fruits of rose
b) ethylic alcohol
c) aromatic herbs (composite tea)
d) tincture of valerian
e) infusion of leaves of sage

## 3. Translate into English:

a) Liquor contra sudorem (sudor, oris $m$ - perspiration)
b) Oleum Lini pro usu icterno
c) species antirheumaticae
d)Vaselinum optimum pro oculis
e) Pulvis Glycyrrhizae compositus
d) Hydraryrum praecipitatum album

## 4. Translate into Latin:

a) Rx: Aromatic herbs 200,0

Give out.
Administer:
b) Rx: Powder of leaves of foxglove 0,05

Sugar 0,3
Mix to get powder
Give out such doses in number 12

## Administer:

c) Rx: Composite plaster of lead 50,0

Administer
5. Write without abbreviations. Translate into English:
a). Recipe: Ung. Sulfuris praecipitati albi $1 \%-20,0$
D. S.
b) Recipe: Fl. Chamomillae heb. Hyperici aa 50,o M.f.sp. D.S.
c) Recipe: Extracti stigmatum Maydis fluidi 50 ml Da.
Signa.

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7. The Latin Language. Test Tasks for Independent Work for the First-Year Students of the Pharmaceutical Faculties with the English Medium of Instruction, Speciality 226 "Pharmacy, Industrial Pharmacy" / A. Kulichenko, T. Titiyevska. Zaporizhzhia : [ZSMU], 2021. - 148 p.

## Information resources

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