Запорізький державний медичний університет

Кафедра іноземних мов

АНГЛІЙСЬКА МОВА ТА

АНГЛІЙСЬКА МОВА ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ:

методичний посібник
до виконання самостійної роботи
слухачами II фармацевтичного факультету спеціальностей «Фармація, промислова фармація» та «Технологія парфумерно-косметичних засобів»
заочної форми навчання (термін навчання 4,5;5,5років)

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АНГЛІЙСЬКА МОВА ТА АНГЛІЙСЬКА МОВА ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ: методичний посібник до виконання самостійної роботи студентами фармацевтичного факультету спеціальностей «Фармація, промислова фармація» та «Технологія парфумерно-косметичних засобів» заочної форми навчання (термін навчання 4,5;5,5років) / Уклад. : О.В. Гордієнко, Ю.В.Орел-Халік, В.В.Жаворонкова. – Запоріжжя : ЗДМУ, 2018. – 78 с.

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ЗМІСТ

ПЕРЕДМОВА

Проблема підготовки фахівців, які б володіли іноземною мовою професійно, є однією з важливих завдань фахової підготовки у вищій школі. Професійна самореалізація та відповідне життя індивіду здебільш залежить від його професійної компетенції, вміння адаптуватися, реалізовувати свої професійні здібності, нахили, інтереси, бути мобільним в професійному самовизначенні та кар'єрі. Іноземна мова наближує ситуацію навчального процесу до реальних умов, що породжує потребу в знаннях, їх практичному застосуванні й забезпечує персональну зацікавленість студентів, перехід від пізнавальної мотивації до професійної.

Самостійна робота студентів заочного відділення з дисциплін «Іноземна мова» та «Іноземна мова за професійним спрямуванням» є складовою навчального процесу, важливим чинником, який формує вміння навчатися,сприяє активізації засвоєння студентом знань. Самостійна робота студентів є основним засобом опанування навчального матеріалу у позааудиторний час.

Мета самостійної роботи студентів — сприяти засвоєнню в повному обсязі навчальної програми та формуванню самостійності як важливої професійної якості, сутність якої полягає в умінні систематизувати, планувати та контролювати власну діяльність.

Мета та завдання навчальної дисципліни

Дисципліни «Іноземна мова» та «Іноземна мова за професійним спрямуванням» в комплексі з іншими спеціальними предметами має велике значення і посідає важливе місце в освітньо-професійній підготовці фармацевтів (спеціальність 226 – освітня програма «Фармація, промислова фармація» та освітня програма «Технології парфумерно-косметичних засобів»), є невід‘ємною частиною загальної проблеми підготовки висококваліфікованих фахівців для фармацевтичної галузі України.

Вивчення предметів базується на принципах міжпредметних зв‘язків, взаємопов‘язаних видів мовної діяльності, теорії поетапного контекстного навчання. У програмі передбачено навчання відповідним алгоритмам у ситуаціях, імітуючих професійно-трудові відношення.

Метою викладання навчальної дисциплін «Іноземна мова» та «Іноземна мова за професійним спрямуванням» є:

- практична: формування у студентів комунікативних мовленнєвих компетенцій та вміння застосовувати свої знання з англійської мови для здійснення іншомовного спілкування. А також застосовувати свої знання при аудіюванні, говорінні, читанні та письмі.
- освітня: формування у студентів розуміння суті мовних явищ; порівняння явищ іноземної мови з рідною мовою; залучення до діалогу культур; оволодіння знаннями про культуру, історію, реалії іншомовної країни; уміння працювати з інформаційними ресурсами.
- розвиваюча: розвиток умінь застосовувати здобуті знання та навички у певній ситуації мовлення на основі здійснення проблемно-пошукової діяльності; мовленнєвих здібностей; інтелектуальних і пізнавальних здібностей; готовності до участі у спілкуванні з носіями мови; готовності до

самоосвіти за просунутими рівнями володіння іноземною мовою, іншомовного спілкування. А також застосовувати свої знання при аудіюванні, говорінні, читанні та письмі.

- виховна: виховання у студентів культури спілкування, яка прийнята в сучасному світі; ціннісних орієнтацій, почуттів та емоцій; позитивного ставлення до іноземної мови, культури народу, який розмовляє цією мовою; таких рис характеру як доброзичливість,
- соціальна: вміння спілкуватися і робити вагомий внесок у міжнародне середовище, що постійно змінюється.
- соціокультурна: досягати широкого розуміння важливих і різнопланових міжнародних соціокультурних проблем.

Основними завданнями вивчення дисциплін «Англійська мова» та «Іноземна мова за професійним спрямуванням» є навчити компетенціям, які поділяються на:

- лінгвістичні: лексична, граматична, семантична, фонологічна, орфографічна, орфоепічна
- соціолінгвістичні: лінгвістичні маркери соціальних стосунків, правила ввічливості, вирази народної мудрості, реєстрові відмінності, діалект та акцент
- прагматичні: дискурсивна та функціональна компетенція.

Структура самостійної роботи

Термін вивчення дисципліни		Обсяг дисципліни		Обсяг самостійної роботи	
Курс, заочна форма навчання	Семестр	Всього (академічні години)	Кредити ECTS	Індивідуальна робота	Вид контролю
I **(4,5-5,5 р.н.)**	1	46	3	40	залік
I **(4,5-5,5 р.н.)**	2	44		40	диф. залік
II **(5,5 р.н.)**	3	80	2,6	72	диф. залік

Види контрольних заходів самостійної роботи

Самостійна робота представляє собою домашнє завдання на самостійне засвоєння матеріалу, контрольну роботу, яка охоплює весь граматичний, лексичний та фактичний матеріал семестру. Залік та диференційований залік складається з наступних блоків:

- Reading
- Speaking
- Writing
- Grammar

Методичні рекомендації до самостійної роботи

Самостійна робота безумовно матиме успіх, якщо студент оберете методику вивчення мови, яка буде підходити саме йому та сприйматиметься, не як тягар і необхідність, а як прагнення до самовдосконалення. Засвоєння відбувається значно швидше, якщо студент сам визначить найбільш прийнятний темп та час роботи. Щоб досягти успіху у вивченні «Англійська мова» та «Іноземна мова за професійним спрямуванням» необхідно розпочати роботу над мовою з перших днів занять у вузі та займатися мовою щоденно. Звертайтеся до довідників, словників тощо, якщо вам незрозумілий той чи інший матеріал.

Для самостійного вивчення англійської мови слід скласти графік занять, якого буде неважко дотримуватися. Намагайтеся вчитися у відведений час. Займатися англійською мовою слід кожний день. Щоденні, навіть не дуже довготривалі (наприклад, 20 хвилин), самостійні заняття з англійської мови значно корисніші, аніж багатогодинний «штурм» раз на тиждень. Оптимальна тривалість самостійного заняття – 60-90 хвилин на день. Кожному пройденому уроку англійської мови через деякий час слід обов‘язково робити 15-хвилинне повторення того нового, що було засвоєно. Вивчаючи англійську мову, перш за все, необхідно мати позитивний настрій.

Фокус уваги необхідно змістити з того, що не виходить, на те, що виходить добре і краще. Рухайтеся від простого до складного. Починайте вивчати навчальний матеріал з того, що є достатньо простим, поступово збільшуючи складність. Це дозволить вам швидко йти до мети і завжди залишатися в позитивному стані. Зробіть комфортні умови для самостійного вивчення англійської мови: зручне робоче місце, хороше освітлення. Приємний фон створює відповідний емоційний настрій.

Як вивчати лексичні одиниці.

Для того, щоб розуміти тексти та розмовляти англійською мовою, треба оволодіти великим запасом слів та виразів.

- Запам‘ятовуйте слова в контексті
- Тренуйте свою пам'ять на засвоєння нових слів
- Випишіть слова, які хотіли б запам‘ятати. Придумайте речення або словосполуку для кожного слова
- Нові слова та вирази записуйте в зошит чи на окремих картках.
- Читайте цікаві англійські тексти, книги, літературу з фаху. Як правило, багато нових слів повторюються і запам‘ятовуються мимоволі.
- Подивитеся в словнику транскрипцію слова, яке ви хотіли б вивчити. І обов‘язково його промовте.
- Добре завчіть алфавіт: це полегшить пошук слів у словнику.
- Використовуйте нове слово в різних ситуаціях: при переказі англійського тексту, практикуючись в англійській мові з друзями, викладачами, носіями мови.
- Головну увагу при вивченні англійських слів приділяйте тим, що не схожі на слова рідної мови. При читанні цих слів промовляйте їх, уявляйте образ.
- На початковому етапі вивчення англійської мови збагачуйте свій активний запас словами, що часто вживаються. Надалі віддавайте перевагу тим англійськім словам, які ви активно використовуєте в рідній мові.
- Запрограмуйте свою свідомість на те, що ви дійсно швидко і легко запам‘ятовуєте англійські слова. Ви швидко побачите результат!
- Звертайте увагу, яку лексику вживають носії англійської мови, тобто спілкуйтеся з іноземцями, дивіться англійські фільми, слухайте радіо. Блок

Communication skills - це всі розмовні навички, яких має здобути студент у результаті самостійної підготовки до заліку або екзамену.

Як розвивати розмовні навички

Для того, щоб навчитися розмовній англійській мові, необхідно запам‘ятати одне з найважливіших правил, - це практикуватися говорити. Чим більше ви говорите англійською мовою, тим швидше ви напрацьовуєте розмовні навики.

Одним з найпростіших і ефективніших способів є принцип «що бачу, те й кажу». Якщо у вас початковий рівень, то можна вголос називати предмети, що оточують вас, або промовляти короткі речення, наприклад: I am a student. I study pharmacy. Одночасно ви, таким чином, тренуєте структуру англійського речення: підмет + присудок в теперішньому часі, що вивчається.

Розкажіть собі або кому-небудь про те, чим ви займалися, займаєтеся або будете займатися сьогодні, за місяць, за рік. Корисно переказувати фільми, розповіді, різні історії. А можна одну й ту ж історію переказати у трьох граматичних часах. Можна практикувати розмовну англійську мову, промовляючи про себе різні корисні фрази. Знання деяких часто вживаних фраз і виразів допоможе вам приймати більше участі в розмовах. Наприклад, більшість студентів в групі не будуть спокійно чекати, поки ви плануєте, що саме хочете сказати. Але, якщо у вас вже будуть готові фрази, як, наприклад: "Well, in my opinion…" або "Do you know what I think?", то вони хоча б зупиняться, і почекають, поки ви продовжите.

Виберіть запис, де говорять англійською мовою, при цьому комунікація повинна бути достатньо зрозумілою з використанням порівняно простої англійської лексики. Прослухайте фрагмент аудіо запису і відзначте ключові слова, фрази. Спробуйте повторити деякі фрази в подібному ритмі і схожою

мелодикою, паузами і т.п. Включіть запис знову і намагайтеся вимовляти фразу за фразою, скорочуючи розрив у відставанні.

Як працювати над текстом

Робота над текстом має здійснюватись у такій послідовності:

- Уважно прочитайте текст, намагаючись зрозуміти його загальний зміст.
- Випишіть слова у словниковий зошит, вивчіть їх.
- Читання кожного слова перевірте за транскрипцією, яка дається у словнику.
- Якщо слово читається не за правилами, запишіть його транскрипцію.
- Поряд запишіть рідною мовою значення іноземного слова, яке найбільше підходить до даного контексту.
- Прочитайте текст ще раз, намагаючись схопити не тільки його загальний зміст, а й деталі.
- Опрацюйте кожне речення тексту, щоб зрозуміти його зміст. У важких випадках проаналізуйте речення: зверніть увагу на порядок слів у реченні.

Постійна та наполеглива праця обов’язково приведе до бажаного результату.

Тематичний план дисципліни
І курс, 1 семестр

№	Знання, уміння, навички	Кількість годин на самостійну роботу	Література
1	**I am a Pharmaceutical Student. Zaporizhzhia State Medical University** **1.1. Grammar:** verb *to be*: *am/is/are*; Present Simple Active. **1.2. Vocabulary:** educational establishment, professional, training, department (etc. p.5-6)**.** **1.3. Communication skills:** 1. understand key questions in listening; 2. exchange personal information orally; 3. note personal information about partner; 4. write words denoting education at Zaporizhzhia State Medical University.	3	Англійська мова для фармацевтів – English for Pharmacists: підручник/за ред. Л.Я. Аврахової. – К.: Медицина, 2009. – 368 с. **Unit 1.**
2	**Pharmaceutical Education in Ukraine** **2.1. Grammar:** verb *to be* – questions and negatives, short answers, possessives; plural nouns; Present Simple Active; time expressions. **2.2. Vocabulary:** molecular, pathology, adjectives, subjects, technology (etc. Ex.3, p.6). **2.3. Communication skills:** 1. understand information about higher medical institutions of our country; 2. ask for entrance exams orally; 3. understand the text "Pharmaceutical Education in Ukraine "; 4. write informal letter about Pharmaceutical Education in Ukraine.	3	**Unit 1.**
3	**The Working Day of a Medical Student** **3.1. Grammar:** Past Simple Active (regular and irregular verbs); time expressions. **3.2. Vocabulary:** jobs, basic verbs, numerical information (etc. Ex.6,p.18). **3.3. Communication skills:** 1. talk and write about daily routine of medical	3	**Unit 1.**

	students ; 2. understand conversations about somebody‘s day; 3. read texts about medical and pharmaceutical students.		
4	**Pharmaceutical Education in Great Britain** **4.1. Grammar:** Future Simple (positive, negative, question); a contrast between to be going to and will. **4.2. Vocabulary:** obvious, verbs, license, apprenticeship, requirement (etc. Ex.1-3,p.24). **4.3. Communication skills:** 1. discuss Pharmaceutical Education in Great Britain; 2. speak and write about the peculiarities of Pharmaceutical Education in Great Britain; 3. read, listen to and understand texts about student‘s life; 4. write informal letters.	3	**Unit 2.**
5	**Pharmaceutical Education in the USA** **5.1. Grammar:** Future Simple Active (positive, negative, question); prepositions of place, *some* and *any*, demonstrative pronouns. **5.2. Vocabulary:** humanities, bachelor, drugstore, physiotherapy (etc. Ex.1-4,p.32). **5.3. Communication skills:** 1. read about Pharmaceutical Education in the USA; 2. understand information about accredited colleges of pharmacy in the USA; 3. get more information about the American Pharmaceutical Association; 4. speak about the history of pharmaceutical education in the USA.	3	**Unit 2.**
6	**Pharmacy** **6.1. Grammar:** Future Simple Active (revision). **6.2. Vocabulary:** compound nouns, verb + noun constructions. **6.3. Communication skills:** 1. read and translate the text Pharmacy;	3	Supplementary Text p.216

	2. discuss the text with your colleagues 3. write a description of pharmacy as a profession.		
7	**My Future Profession** **7.1. Grammar:** Simple Tenses Active (review) **7.2. Vocabulary:** pharmacology, toxicology, preparation, standardize (p.215-216) **7.3. Communication skills:** 1. read and translate the text My Future Profession; 2. discuss the text with your colleagues; 3. describe your future profession.	3	Supplementary Text p.215
8	**Botany** **8.1. Grammar:** Past Simple Passive, negatives – ago, time expressions. **8.2. Vocabulary:** words concerning Botany as the science (Ex.1-3, p.39-40) **8.3. Communication skills:** 1. understand what Botany is; 2. develop conversations about different sciences which Botany includes; 3. talk about Taxonomy and Morphology; 4. write notes about Plant ecology.	3	**Unit 3.**
9	**History of Botany** **9.1. Grammar:** Past Simple Passive; count/ uncount nouns, I like…; I'd like...?,*a, an* and *some, much/many*. **9.2. Vocabulary:** words relating History of Botany (Ex.1-3, p.47-48) **9.3. Communication skills:** 1. understand information about History of Botany; 2. use conversational phrases appropriate to the development of modern Botany; 3. discuss the development of the system of naming plants; 4. speak about the achievements of ancient Greeks and Romans in Botany.	3	**Unit 3.**
10	**Plants** **10.1. Grammar:** Past Simple Passive (review);	3	Supplementary

	comparatives and superlatives, *have got.* **10.2. Vocabulary**: plants/classification of plants; verbs and adjectives. **10.3. Communication skills:** 1. ask about and explain groups of plants; 2. compare different groups; 3. give directions about classification of plants; 4. write about the development of plants.		Text p.226
11	**Phytopharmacy** **11.1. Grammar:** Continuous Tenses Active, possessive pronouns. **11.2. Vocabulary:** words relating to homeopathic medicine; words substances; words that concern pharmacological function of plant products (Ex.1-4, p.56-57). **11.3. Communication skills:** 1. exchange information about the importance of medicinal plants; 2. describe what phytopharmacy is; 3.talk about pharmacological properties of any plant.	3	**Unit 4.**
12	**Homeopathic Medicine** **12.1. Grammar:** Continuous Tenses Passive (positive, negative, question forms). **12.2. Vocabulary:** words relating to homeopathy (Ex.1-4, p.64-65). **12.3. Communication skills:** 1. exchange information about the history of Homeopathic Medicine; 2. talk about some homeopathic remedies; 3. give rules how to use them.	3	**Unit 4.**
13	**Review** 1. Understand and use grammar and vocabulary taught in Units 1-4 2. Successfully carry out tasks using combinations of the communication skills practiced in Units 1-4 **Get ready for credit test**	4	**Units 1- 4.**
	Разом	**40**	

I курс, 2 семестр

№	Знання, уміння, навички	Кількість годин на самостійну роботу	Література
1	**Chemistry** **1.1. Grammar:** Continuous Tenses Passive; prepositions of time. **1.2. Vocabulary:** words connected with Chemistry; chemical symbols (Ex.1-5, p.73-74) **1.3. Communication skills:** 1. speak about Chemistry and chemists; 2. exchange information about different substances; 3. name chemical sciences and describe them; 4. give examples of some chemical reactions.	3	**Unit 5.**
2	**Chemical Analysis** **2.1. Grammar:** Present Perfect (positive, negative, question), Past Simple and Present Perfect. **2.2.Vocabulary:** terms relating to chemical analysis (Ex.1-4, p.83-84). **2.3. Communication skills:** 1. identify and explain what chemical analysis is; 2. read and summarize methods of quantitative and qualitative analysis; 3. explain what analysis (synthesis) is; 4. describe physical and chemical properties of any matter.	3	**Unit 5.**
3	**The Beginnings of modern Chemistry** **3.1. Grammar:** Perfect Tenses Active (positive, negative, question forms). **3.2. Vocabulary:** nouns connected with the history of modern chemistry; words describing the discoveries of English chemists in 18^{th} century. **3.3. Communication skills:** 1. describe key discoveries in chemistry in the 17^{th} century;	3	Supplementary Text p.238

	2. use additional information to describe the development of chemical science; 3. discuss the contribution of different chemists into the development of fundamental theory; 4. find more information on the history of chemistry.		
4	**Inorganic chemistry** **4.1. Grammar:** Perfect Tenses Active (positive, negative, question forms) (review). **4.2 Vocabulary:** terms relating to inorganic chemistry (Ex.1-4, p. 93-94). **4.3 Communication skills:** 1. read and translate the text Solutions; 2. describe some chemical reactions; 3. give explanations of what solubility is; 4. name the main solvents	3	**Unit 6.**
5	**Compounds, Molecules, and mixtures, symbols for elements** **5.1 Grammar:** revision Perfect Tenses Active, must + infinitive Passive, as … as, so … as **5.2 Vocabulary:** terms relating to the chemical elements, compounds and molecules. **5.3 Communication skills:** 1. read and translate the text Compounds, Molecules, and mixtures, symbols for elements; 2. understand and respond correctly to the given questions; 3. use plan to render the text; 4. identify and use constructions with Perfect Tenses Active	3	Supplementary Text p.232
6	**Chemical compounds** **6.1. Grammar:** Perfect Tenses Passive (positive, negative, question); a comparison between Present Simple Passive and Present Perfect Passive. **6.2. Vocabulary:** basic word combinations describing chemical compounds, terms (ex.1-3, p.101-102). **6.3. Communication skills:** 1. read and understand the text Chemical	3	**Unit 6.**

	compounds; 2. describe three big classes of chemical compounds; 3. respond correctly to the given questions; 4. read supplementary text Chemical Bonds (p.229) 5. identify and use constructions with Present Simple Passive and Present Perfect Passive		
7	**Atoms** **7.1. Grammar:** Perfect Tenses Passive (revision). **7.2. Vocabulary:** terms concerning atoms and atomic theory. **7.3. Communication skills:** 1. read and discuss atoms and their structure; 2. describe the construction of elements; 3. answer the questions correctly; 4. render the text; 5. for additional information read text The Atomic Theory (p.230)	3	Supplementary Text p.228
8	**Organic Chemistry** **8.1. Grammar:** Perfect Tenses Passive (revision), negatives – ago, time expressions. **8.2. Vocabulary:** terms defining organic chemistry (ex. 1-4, p. 111-112). **8.3. Communication skills:** 1. read and understand the text Organic chemistry; 2. answer the questions; 3. translate into English given sentences; 4. write notes about the simplest organic compounds; 5. be ready to correct wrong statements.	3	**Unit 7.**
9	**Carbohydrates: Sugars** **9.1. Grammar:** Perfect Continuous Tenses (positive, negative, question forms). **9.2. Vocabulary:** words relating to carbohydrates (starches and sugars). **9.3. Communication skills:** 1. understand information about carbohydrates	3	Supplementary Text p.235

	sugars; 2. use conversational phrases to answer the questions given before the text; 3. write down the formula of cane sugar and milk sugar (lactose); 4. be ready to render the text Carbohydrates: Starches (p.234).		
10	**Pharmaceutical Chemistry** **10.1. Grammar:** Perfect Continuous Tenses; revision of comparatives and superlatives. **10.2. Vocabulary**: pharmaceutical and medicinal chemistry terms (ex. 1-4, p.120-121). **10.3. Communication skills:** 1. read and understand the text Pharmaceutical chemistry; 2. speak about intersection of chemistry and pharmacy; 3. give directions on drug discovery; 4. write about the process of drug preparation (dry and wet).	3	**Unit 7.**
11	**Drugs. Administration of drugs** **11.1. Grammar:** Tenses Revision **11.2. Vocabulary:** words relating to drugs; words to describe administration of drugs (ex.1-3, p.131-132; ex. 1-4, p.139-140). **11.3. Communication skills:** 1. exchange information about pharmacology as the science which studies drugs; 2. describe the importance of administration of a drug; 3. be ready to answer the questions; 4. correct the wrong statements; 5. identify different methods used by physicians to administer drugs.	3	**Unit 8.**
12	**Chemist's Shop** **12.1. Grammar:** Making Comparisons; comparatives and superlatives. **12.2. Vocabulary:** words relating to prescription, medication and storage (ex.1-4, p.149-150).	3	**Unit 8.**

	12.3. Communication skills: 1. read and understand the text Chemist's Shop; 2. exchange information about different departments of chemist's shop; 3. talk about the prescription department; 4. explain what drugs can be taken by prescription only.		
13	**Review** 1. Understand and use grammar and vocabulary taught in Units 5-8 2. Successfully carry out tasks using combinations of the communication skills practiced in Units 5-8 **Get ready for credit test**	4	**Units 5- 8.**
	Разом	**40**	

II курс, 3 семестр

№	Знання, уміння, навички	Кількість годин на самостійну роботу	Література
1	**Cardiovascular Diseases** **1.1 Grammar:** Modal verbs and their equivalents (positive, negative, question forms). **1.2 Vocabulary:** terms relating to cardiovascular diseases (ex.1-4, p.160-161). **1.3 Communication skills:** 1. read and understand the text Cardiovascular Diseases; 2. describe some heart diseases; 3. find information on the treatment of heart diseases; 4. demonstrate understanding of characteristic complaints in myocardial infarction.	6	**Unit 9.**
2	**Cardiovascular Drugs** **2.1. Grammar:** Modal verbs and their equivalents (positive, negative, question forms).	6	**Unit 9.**

	2.2 Vocabulary: items that affect the heart and blood pressure , terms describing drugs that prevent blood clotting (ex.1-3, p.171-172). **2.3 Communication skills:** 1. read and understand the text Cardiovascular Drugs; 2. name different types of cardiovascular drugs; 3. speak about the drugs used to correct abnormal heart rhythm; 4. identify how nitroglycerin acts; 5. enumerate vasoconstrictor drugs; 6. explain what drugs are called anticoagulants.		
3	**Drugs for Cardiac Arrhythmias Correction** **3.1. Grammar:** Modal verbs and their equivalents (positive, negative, question forms); expressing possibility and opinion. **3.2. Vocabulary:** describing drugs that affect heart, items used in First aid kit in cardiac dysfunctions. **3.3. Communication skills:** 1. read and understand the text Drugs for Cardiac Arrhythmias Correction 2. express your opinion about side effects of cardiac drugs; 3. identify whom is the information given in the text useful for; 4. understand and explain the action of cardiac glycosides; 5. be ready to render the text according to the given scheme.	6	Supplementary Text p.255
4	**Gastrointestinal Disorders** **4.1 Grammar:** Reported Speech; Question forms (revision) **4.2 Vocabulary:** terms relating to the Gastrointestinal Disorders (ex.1-4, p.178-179). **4.3 Communication skills:** 1. read the text Gastrointestinal Disorders; 2. describe gastrointestinal diseases; 3. give information on their clinical manifestations;	6	**Unit 10.**

	4. complete the dialogue between the doctor and the patient; 5. give as much information as you can about causes, symptoms and treatment of gastrointestinal diseases.		
5	**Gastrointestinal Drugs** **5.1 Grammar:** Reported Speech; revision Imperative Mood, must + infinitive Passive. **5.2 Vocabulary:** terms relating to Gastrointestinal Drugs (ex.1-4, p.185-186). **5.3 Communication skills:** 1. read and understand the text Gastrointestinal Drugs; 2. name different types of gastrointestinal drugs; 3. speak about the drugs used to relieve gastrointestinal pain and irritation; 4. identify how antacids act; 5. enumerate drugs that inhibit acid secretion; 6. explain what drugs are called H-2 antagonists.	6	**Unit 10.**
6	**Antidiarrhoeal Drugs** **6.1. Grammar:** Reported Speech (revision). **6.2. Vocabulary:** describing antidiarrhoeal drugs. **6.3. Communication skills:** 1. read and understand the text Antidiarrhoeal Drugs; 2. express your opinion about side effects of antidiarrhoeal drugs; 3. identify whom is the information given in the text useful for; 4. enumerate what antidiarrhoeal drugs do you know; 5. explain what diarrhea is and its causes; 6. be ready to render the text according to the given scheme.	6	Supplementary Text p.263
7	**Infectious Diseases** **7.1 Grammar:** Type I Conditionals; if-clause. **7.2 Vocabulary:** terms relating to the Infectious Diseases (ex.1-4, p.193-194).	6	**Unit 11.**

	7.3 Communication skills: 1. read the text Infectious Diseases; 2. describe the most common type of disease; 3. give information on causative agents of infectious diseases and their clinical manifestations; 4. give as much information as you can about the treatment of infectious diseases; 5. explain what is called an epidemic, a pandemic, an endemic; 6. render the text.		
8	**How Infectious Diseases Spread** **8.1. Grammar:** Type I Conditionals. **8.2. Vocabulary:** describing spreading of infectious diseases. **8.3. Communication skills:** 1. read and understand the text How Infectious Diseases Spread; 2. express your opinion about the ways of spreading of infectious diseases; 3. identify whom is the information given in the text useful for; 4.render the text.	4	**Unit 11.**
9	**Drugs That Fight Infection and Drugs that Prevent Infectious Diseases** **9.1. Grammar:** Type II Conditionals. **9.2. Vocabulary:** terms relating to the drugs that fight infection and drugs that prevent infectious diseases (ex.1-4, p.201-202). **9.3. Communication skills:** 1. read and understand the text Drugs That Fight Infection and Drugs that Prevent Infectious Diseases; 2. name different types of drugs preventing the spread of infection; 3. speak about vaccines; 4. express your opinion on side effects of antibiotics; 3. identify whom is the information given in the text useful for;	6	**Unit 11.**

	4.render the text.		
10	**Antibacterial Drugs: Cephalosporins** **10.1. Grammar:** Type II Conditionals. **10.2. Vocabulary:** describing antibacterial drugs. **10.3. Communication skills:** 1. read and understand the text Antibacterial Drugs: Cephalosporins; 2. express your opinion about side effects of antibacterial drugs; 3. identify whom is the information given in the text useful for; 4. enumerate what antibacterial drugs do you know; 5. answer the questions and be ready to render the text according to the given scheme.	6	Supplementary Text p.272
11	**Sulfa Drugs** **11.1. Grammar:** Conditionals (revision). **11.2. Vocabulary:** describing sulfa drugs. **11.3. Communication skills:** 1. read and understand the text Sulfa Drugs; 2. express your opinion about the role of sulfa drugs in antibacterial treatment before penicillin became widely available; 3. identify the mechanism of sulfa drugs work; 4. give as much information as you can about the development of sulfa drugs; 5. speak about the usage of sulfa drugs in treating diseases; 6. use the plan for retelling the text.	4	Supplementary Text p.274
12	**How AIDS Affects the Body** **12.1. Grammar:** Conditionals (revision). **12.2. Vocabulary:** terms relating to HIV and AIDS (ex.1-4, p.207-208). **12.3. Communication skills:** 1. read and understand the text How AIDS Affects the Body; 2. name drugs preventing the spread of infection; 3. speak about causes, symptoms and	4	**Unit 11.**

	transmission of the disease; 4. give as much information as you can about immunodeficiency syndrome; 5. identify whom is the information given in the text useful for; 6.render the text.		
13	**Review** 1. Understand and use grammar and vocabulary taught in Units 9-11 2. Successfully carry out tasks using combinations of the communication skills practiced in Units 9-11 **Get ready for credit test**	6	**Units 9- 11.**
	Разом	**72**	

Питання для самоконтролю

Ікурс 1 семестр

1. What higher medical institutions of our country train pharmacists?
2. What entrance exams do the applicants take?
3. Where do the students have practical training?
4. Where do the students have practical classes?
5. What is internship?
6. What pharmaceutical specialties do you know?
7. How many foreign students study medicine and pharmacy in Ukraine?
8. What is the evidence of a high standard of medical and pharmaceutical education in our country?
9. What is postgraduate study?
10. Where can graduates work after completing their study?
11. Where do you study?
12. What do you do in the morning?
13. What time do you usually live home?
14. How long does it take you to get to the university?
15. How many lectures a day do you usually have?
16. What do you do when you come home from the university?
17. What changes did the training of the pharmacist undergo?
18. When were the first pharmaceutical colleges founded in Great Britain?
19. What additional graduate courses do many institutions offer?
20. What professional training includes medical subjects and training in hospital wards?
21. What is the professionally trained pharmacist expected to do?
22. What curriculum do other countries offer?
23. What is required to be permitted to practice pharmacy in Great Britain?
24. When was the first college of pharmacy founded in the United States?
25. What is its name today?
26. Where were other institutes and colleges established soon after?
27. What did many universities organize later?
28. What does each state require from graduates before granting them a license to practice in the state?
29. What specialized professional courses must the students complete?
30. Where may pharmacists work?
31. What is the American Pharmaceutical Association?
32. What other international societies do you know?
33. What does botany study?
34. What does botany include?

35. Is it necessary to study the form and the structure of a plant? Why?
36. What forms the base of the natural food chain?
37. What do plant pathologists study?
38. Are large plants, like trees, made up of many different kinds of cells?
39. Why is plant physiology important not only to the expert, who studies plants, but to everyone else in the world?
40. Is chlorophyll (the green pigment) essential in photosynthesis? Why?
41. Is taxonomy concerned with the study of plant remains?
42. When did people begin to depend on plants cultivation for most of their food?
43. Who made the first scientific studies of plants?
44. Is Theophrastus often called the father of botany?
45. What is morphology?
46. What is a chloroplast?
47. During which period did European exploration of the world greatly stimulate the study of botany and other sciences?
48. How do plants and other organisms inherit their traits?
49. Who developed the system of naming plants that was eventually accepted as a standard classification system?
50. Would human beings and other animals suffocate without plants? Why?
51. What is phytopharmacy?
52. Are medicinal plants important? Why?
53. What does nature produce?
54. Are plants constantly metabolising?
55. Besides their own essential principles, what do plants produce?
56. May the situation be complicated when there are synergistic or antagonistic principles or substances with other pharmacological effects in the plant at the same time?
57. May the inactive compounds interfere with the action of the active ones or may they be their precursors?
58. How do drugs arise from a heterogeneous population of individual plants?
59. May the inactive principles alter the activity of the drug by physical means?
60. Have members of the Royal Family been cared for by homeopathic physicians?
61. How many homeopathic physicians are there in France?
62. Will Allium cepa help the person with early-stage cold?
63. Will Apis mellifica relieve insect bites, including bee stings, or other rosy red spots with stinging pains?
64. What can Belladonna treat?
65. What is Gelsemium? What is it often needed for?
66. Is Ignatia the grief remedy for the person who doesn't recover from an emotional upset such as disappoinment or anger?

67. In what cases is Ledum palustre helpful?

I курс, 2 семестр

1. What is chemistry?
2. What do chemists study?
3. What are chemical changes?
4. What is the difference between chemical and physical changes?
5. How do chemical elements differ from each other?
6. How many elements are there on the Earth: natural and artificially synthesized?
7. What is analytical chemistry? Why is it important to study quantitative and qualitative analysis?
8. What professions is biochemistry especially important for?
9. What tools are used in colloid chemistry?
10. What is the difference between organic, inorganic chemistry and biochemistry?
11. What states of matter do you know?
12. What is the most important characteristic of a substance?
13. What are the two kinds of properties of substances?
14. What is the difference between the physical and chemical changes?
15. What are the two kinds of laboratory investigations?
16. What is the difference between analysis and synthesis?
17. What is the difference between quantitative and qualitative analysis?
18. What types of quantitative analysis do you know?
19. What types of qualitative analysis do you know?
20. What is solution?
21. What is solute?
22. What is solvent?
23. What is the physical form of solutions?
24. What are electrolytes and nonelectrolytes?
25. What are chemical reactions the chemical solutions are involved in?
26. What is suspension?
27. What is emulsion?
28. Are all substances soluble in water?
29. What is solubility?
30. What is the concentration of solution?
31. How many classes of chemical compounds do you know?
32. What are acids? Name all the acids you know.
33. What properties do acids possess?
34. What are bases?
35. What are the properties of bases?

36. What is the difference between acids and bases?
37. What is neutralization?
38. What is salt? What way are salts obtained in?
39. What is organic chemistry?
40. What compounds of carbon do you know?
41. What are the three biggest classes of organic compounds?
42. What are proteins?
43. What proteins do you know?
44. What are carbohydrates?
45. What carbohydrates do you know?
46. What are lipids?
47. What are the functions of proteins, carbohydrates and lipids?
48. What does pharmaceutical chemistry study?
49. What are the steps of drug discovery?
50. What processes may be employed in the pharmaceutical chemistry?
51. What processes may be employed in case of dry preparations? Of wet preparations?
52. What is the difference between trituration and levigation?
53. What is granulation?
54. When is fusion used?
55. What is the difference between maceration and digestion?
56. What is filtration? In what way is it performed?
57. What is the difference between decoction, infusion and filtration?
58. What are drugs?
59. How can drugs be obtained?
60. What are drugs synthesized from?
61. What does pharmacology study?
62. What are the branches of pharmacology?
63. What is molecular pharmacology concerned with?
64. When is chemotherapy indicated?
65. Why is it necessary to hold investigations on antidotes?
66. Which drugs are safer: natural or chemically synthesized?
67. What does medical pharmacology study?
68. What ways of drug administration do you know?
69. Who prescribes the way of drug administration to a patient?
70. What is the difference between the oral and sublingual ways?
71. When is the sublingual way indicated?
72. Why should a physician prescribe rectal administration?
73. What are the ways of parenteral administration? What is the difference between them?

74. What diseases can be treated by inhalation?
75. What is the difference between antiseptic and antipruritic drugs?
76. What do we call a chemist's shop?
77. What kinds of chemist's shops do you know?
78. What can we buy at the chemist's?
79. Where are all the drugs kept at the chemist's?
80. What drugs can we take by prescription only?
81. What are the necessary particulars on the label?
82. What are the essential parts of the complete prescription?
83. What is the difference between superscription, subscription and inscription?
84. What is the body of prescription?
85. What parts does the inscription consist of?
86. Who assesses the safety factor of a drug?
87. What dose does the therapeutic index mean?
88. How is the realization of medicines promoted?

II курс, 3 семестр

1. What diseases are the greatest killers in the modern society?
2. Are they always fatal?
3. What cardiovascular diseases do you know?
4. Explain what happens to a patient suffering from atherosclerosis.
5. How can the risk of atherosclerosis be reduced?
6. What is the medical name for a heart attack?
7. What happens to the victim during such an attack?
8. What is the cause of angina pectoris?
9. What may a stroke result in?
10. What are the most prominent symptoms of hypertension?
11. What modern medical advances can help a heart victim?
12. What may cardiovascular drugs be divided into?
13. What drugs are used to treat patients with heart failure?
14. What are digitalis glycosides obtained from?
15. What other sympathomimetics do you know?
16. When are vasodilators administered?
17. How do they act?
18. What drugs are used as vasodilators?
19. In what cases are anticoagulants administered?
20. How can heparin be made?
21. In what case would you prescribe heparin?

22. What are the symptoms of gastritis?
23. What are the causes of acute and chronic gastritis?
24. What happens if the tissues of the stomach erode and open sores develop?
25. What are the two kinds of peptic ulcers? What do you know about each of them?
26. What are the three main types of colitis? Describe each of them.
27. What are the causes of peritonitis?
28. What is dysentery?
29. When can hydrochloric acid cause pain in the stomach?
30. How do antacids help relieve or prevent pain associated with peptic ulcers?
31. What do antacids contain?
32. Is a doctor's prescription necessary to purchase antacids? Why?
33. What problems may result from the long-term use of antacids?
34. How can H-2 antagonists promote ulcer healing?
35. What drugs can completely inhibit acid secretion?
36. When are antibiotics prescribed?
37. What are pathogens?
38. How can infectious diseases be grouped?
39. What organisms are called bacteria?
40. What diseases are caused by viruses?
41. What do you know about AIDS?
42. How do fungi, protozoans, and worms obtain food?
43. How do infectious diseases spread?
44. What conditions are called an epidemic, a pandemic, an endemic?
45. What are antimicrobials?
46. How are antimicrobials that act against bacteria classified?
47. How are antibiotics obtained?
48. How are sulfonamides prepared?
49. What are antiviral drugs?
50. What are the two kinds of drugs that prevent infectious diseases?
51. What are vaccines?
52. What are antiserums and globulins?
53. What is AIDS?
54. When and where were the first cases of AIDS identified?
55. When and where did researchers detect HIV in a specimen for the first time?
56. What is AIDS caused by?
57. Where do HIV-1 and HIV-2 occur?
58. What cells does HIV infect?
59. What are the symptoms of HIV?
60. What are the periods in AIDS flow?

61. What are the ways of HIV transmission?
62. What are the ways of preventing HIV transmission?
63. How is HIV not transmitted?

ДОДАТКОВІ ТЕКСТИ
ДЛЯ САМОСТІЙНОГО ЧИТАННЯ ТА РЕФЕРУВАННЯ

Text 1. Powders

Powders are medicated solids for oral and external administration, consisting of one or more substances, bulky (большое количество) in properties. Powders are divided into simple, consisting of only one substance and complicated, consisting of two or more ingredients. They are presented as single-dose and multidose preparations. Powders should be homogeneous upon examination by naked (невооруженный) eye and have particles not more than 0,160 mm, if there aren't any other requirements in particular monographs.

Complicated powders are prepared with reference to the amounts and properties of ingredients. With the presence of ingredients in different amounts, mixing is carried out beginning with the substances in less amounts and gradually adding other ingredients.

Poisonous and drastic (сильнодействующий) substances in amounts not less than 0,05 g of total mass are used in the form of trituration (растирать в порошок) – mixes with milk, sugar or other substance, admitted for medical use (1:100 or 1:10).

Store in a package protected from any external influences and provide stability of the preparation during the determined period of validity, in a dry, and if it is required, in a cool place, protected from light.

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Text 2. Granules

Granules are preparations consisting of solid, dry aggregates of powder particles. They are intended for oral administration. Some are swallowed, some are chewed and some are dissolved or dispersed in water or another suitable liquid.

Granules contain one or more active substances with or without, if necessary, colouring matter and flavoring substances.

Granules are presented as single-dose or multidose preparations. Each dose is administered by means of a device suitable for measuring the quantity prescribed.

Several categories of granules may be distinguished. Among them are effervescent granules, coated granules, gastro-resistant granules, modified-release granules.

Effervescent granules are uncoated granules generally containing acid substances and carbonates which react rapidly in the presence of water to release carbon dioxide. They are intended to be dissolved or dispersed in water before administration.

Coated granules are usually multidose preparations and consist of granules coated with one or more layers of mixtures of various excipients.

Gastro-resistant granules are intended to resist the gastric fluid and to release the active substances in the intestinal fluid. These properties are by covering the granules with a gastro-resistant material or by other suitable means.

Modified-release granules are coated or uncoated granules containing special excipients, separately or together. They are designed to modify the rate, the place and the time at which the active substance is released. Modified-release granules include prolonged-release granules and delayed-release granules.

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Text 3. Water For Injections

Water for injections is a clear, colorless, and tasteless liquid. It is the water for preparing medicines for parenteral (парентеральный) administration and for dissolving or diluting substances.

Water for injections is obtained from the water intended for human consumption or from purified water by distillation, by exchange or by any other suitable method. During the production and subsequent storage, appropriate measures are taken to ensure that the total amount of water is adequately controlled.

Under normal conditions the total count of microorganisms is set as 10 per 100 ml when determined by membrane filtration.

Water for injections is stored and distributed in conditions designed to prevent the growth of microorganisms and to avoid any other contamination.

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Text 4. Interferon

Interferon is a protein produced by various body cells in response to viral infections. Interferons protect other cells from becoming infected by the virus. Interferons also are produced if certain harmful chemicals and drugs enter the

body. Researchers have tested interferons in the treatment of many diseases, including certain cancers.

There are three types of interferons: alpha, beta, and gamma. Alpha and beta interferons are produced by many types of cells throughout the body. Gamma interferon, also called immune interferon, is produced by white blood cells called lymphocytes. All three interferons are released by the cells within a few hours after a viral infection occurs. They bind to the cells that border the infection and prevent the virus from spreading. Some interferon enters the bloodstream, where more is produced to help protect the rest of the body. In addition to its antiviral properties, gamma interferon acts as a signal molecule in triggering an immune response to many kinds of infections. An immune response is the process by which the body produces disease fighting cells and antibodies.

Interferon was jointly discovered in England by Scottish virologist Alick Isaacs and Swiss virologist Jean Lindenmann in 1957. In the late 1960s, Kari J. Cantell, a Finnish virologist, developed techniques for obtaining interferons from human white blood cells. Today, scientists use techniques of molecular biology to manufacture large quantities of interferons.

Peterson N. Herbs and Health.

Text 5. Antibiotics

Antibiotics are powerful medicines that fight bacterial infections. Used properly, antibiotics can save lives. They either kill bacteria or keep them from reproducing. Your body's natural defenses can usually take it from there. Antibiotics do not fight infections caused by viruses, such as colds, flu, most coughs and bronchitis, sore throats, unless caused by strep.

If a virus is making you sick, taking antibiotics may do more harm than good. Each time you take antibiotics, you increase the chances that bacteria in your body will be able to resist them. Later, you could get or spread an infection that those antibiotics cannot cure. Methicillin-resistant Staphylococcus aureus (MRSA) causes infections that are resistant to several common antibiotics.

When you take antibiotics, follow the directions carefully. It is important to finish your medicine even if you feel better. If you stop treatment too soon, some bacteria may survive and re-infect you. Do not save antibiotics for later or use someone else's prescription.

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Text 6. Patents and Generics

Depending on a number of considerations, a company may apply for and be granted a patent for the drug, or the process of producing the drug, granting exclusivity rights typically for about 20 years. However, only after rigorous study and testing, which takes 10 to 15 years on average, will governmental authorities grant permission for the company to market and sell the drug. Patent protection enables the owner of the patent to recover the costs of research and development through high profit margins for the branded drug. When the patent protection for the drug expires, a generic drug is usually developed and sold by a competing company. The development and approval of generics is less expensive, allowing them to be sold at a lower price. Often the owner of the branded drug will introduce a generic version before the patent expires in order to get a head start in the generic market. Restructuring has therefore become routine, driven by the patent expiration of products launched during the industry's 'golden era' in the 1990s and companies' failure to develop sufficient new blockbuster products to replace lost revenues.

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Text 7. What is Pharmacy?

Pharmacy is the health profession that links the health sciences with the chemical sciences and it is charged with ensuring the safe and effective use of pharmaceutical drugs.

The scope of pharmacy practice includes more traditional roles such as compounding and dispensing medications, and it also includes more modern services related to health care, including clinical services, reviewing medications for safety and providing drug information. Pharmacists, therefore, are the experts on drug therapy and are the primary health professionals who optimize medication use to provide patients with positive health outcomes.

An establishment in which pharmacy is practiced is called a pharmacy, chemist's or drug store. In the United States and Canada, drug stores commonly sell not only medicines, but also miscellaneous items such as candy (sweets), cosmetics, and magazines, as well as light refreshments or groceries.

The word pharmacy is derived from its root word pharma which was a term used since the 15th–17th centuries. In addition to pharma responsibilities, the pharma offered general medical advice and a range of services that are now performed solely by other specialist practitioners, such as surgery and midwifery. The pharma (as it was referred to) often operated through a retail shop which, in

addition to ingredients for medicines, sold tobacco and patent medicines. The pharmas also used many other herbs not listed.

In its investigation of herbal and chemical ingredients, the work of the pharma may be regarded as a precursor of the modern sciences of chemistry and pharmacology.

Peterson N. Herbs and Health.

Text 8. Pharmacists

Pharmacists are health professionals who practice the art and science of pharmacy. In their traditional role, pharmacists typically take a request for medicines from a physician in the form of a medical prescription and dispense the medication to the patient and counsel them on the proper use and adverse effects of that medication. In this role, pharmacists ensure the safe and effective use of medications. Pharmacists also participate in disease state management, where they optimize and monitor drug therapy. Pharmacists have many areas of expertise and are a critical source of medical knowledge in clinics, hospitals, and community pharmacies throughout the world.

Pharmacists are very skilled and specialized individuals with specific knowledge that makes them a vital part of any healthcare team. They act as a learned intermediary between patients and physicians to ensure that proper medical therapy is chosen and implemented in the best way possible.

Pharmacists are sometimes referred to as chemists. This term is a historical one, since pharmacists originally were required to complete an undergraduate degree in Pharmaceutical Chemistry and were known as "Pharmaceutical Chemists".

Peterson N. Herbs and Health.

Text 9. Internet Pharmacy

Recently, a number of pharmacies have begun operating over the internet. Many such pharmacies are, in some ways, similar to community pharmacies; the primary difference is the method by which the medications are requested and received. Some customers consider this to be more convenient than traveling to a community drugstore.

Some internet pharmacies sell prescription drugs without requiring a prescription. Some customers order drugs from such pharmacies to avoid the "inconvenience" of visiting a doctor or to obtain medications which their doctors

were unwilling to prescribe. However, this practice has been criticized as potentially dangerous, especially by those who feel that only doctors can reliably assess contraindications, risk/benefit ratios, and an individual's overall suitability for use of a medication. There have also been reports of such pharmacies dispensing substandard products.

In the coming decades, pharmacists are expected to become more integral within the health care system. Rather than simply dispensing medication, pharmacists expect to be paid for their cognitive skills.

Many universities are altering their programs to increase emphasis in fields such as pharmacotherapeutics, clinical pharmacy, nuclear pharmacy, disease state management, etc.

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Text 10. Types of Laboratories

In many countries, there are two main types of labs that process the majority of medical specimens. Hospital laboratories are attached to a hospital, and perform tests on patients. Private (or community) laboratories receive samples from general practitioners, insurance companies, clinical research sites and other health clinics for analysis. These can also be called reference laboratories where more unusual and obscure tests are performed. For extremely specialized tests, samples may go to a research laboratory. A lot of samples are sent between different labs for uncommon tests. It is more cost effective if a particular laboratory specializes in a rare test, receiving specimens (and money) from other labs, while sending away tests it cannot do.

In many countries there are mainly three types of Medical Laboratories as per the types of investigations carried out: 1. Clinical Pathology, 2. Clinical Microbiology, 3. Clinical Biochemistry laboratories. Blood bank is a separate body. Molecular diagnostic labs or cyotgenetics and molecular biology labs are the latest addition to the three types of medical laboratories listed above in many countries.

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Text 11. What are Lab Tests?

Laboratory tests are medical procedures that involve testing samples of blood, urine, or other tissues or substances in the body. Why does your doctor use

lab tests? Your doctor uses laboratory tests to help: identify changes in your health condition before any symptoms occur, diagnose a disease or condition before you have symptoms, plan your treatment for a disease or condition, evaluate your response to a treatment, or monitor the course of a disease over time.

How are lab tests analyzed? After your doctor collects a sample from your body, it is sent to a laboratory. Laboratories perform tests on the sample to see if it reacts to different substances. Depending on the test, a reaction may mean you do have a particular condition or it may mean that you do not have the particular condition. Sometimes laboratories compare your results to results obtained from previous tests, to see if there has been a change in your condition.

What do lab tests show? Lab tests show whether or not your results fall within normal ranges. Normal test values are usually given as a range, rather than as a specific number, because normal values vary from person to person. What is normal for one person may not be normal for another person.

Some laboratory tests are precise, reliable indicators of specific health problems, while others provide more general information that gives doctors clues to your possible health problems. Information obtained from laboratory tests may help doctors decide whether other tests or procedures are needed to make a diagnosis or to develop or revise a previous treatment plan. All laboratory test results must be interpreted within the context of your overall health and should be used along with other exams or tests.

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Text 12. Chemistry and Nutrition (Part 1)

Since most men think much of what they eat it is not surprising that the early chemists spent much time on the study of food. In the eighteenth century it was already known that starch when heated with dilutre sulphuric acid, gave “sugar of grapes”, or , as we term it , glucose.

It was then recognized that 100 parts of starch gave about 110 parts of glucose and, since the sulphuric acid was unchanged in the process, the reaction must consist of the additional about 10 per cent by weight of water to starch.

As early as 1820 the amino acids glycine and leucine were isolated in crystalline form from solutions prepared by heating proteins with mineral acid. By the end of nineteenth century the nature and role in nutrition of the proteins, carbohydrates, fates and the most important minerals were established. In the twenty century the vitamins and the elements required only in small amounts were discovered.

In the more advanced countries the standard of nutrition of the population thanks to carbon chemistry improved markedly during the past fifty years. This improvement in nutrition plays an important part in the improvement of health and the increase in life duration.

Nutrition deficiency has disappeared in most advanced countries. Now it is probably that overnutrition is the most serious trouble to health than undernutrition. Unfortunately, in many developing countries, particulary in tropics, the position is much less satisfactory. Diseases and death from malnutrition are still numerous.

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Text 13. Chemistry and Nutrition (Part 1)

The contribution of chemistry to the improvement in nutrition is very considerable. Our earth is now more productive. The comparison of present results with those of fifty years ago indicates quite extraordinary improvement. The more economical production of vegetables increased the amount of animal products such as milk, meat, butter cheese and eggs. The food additives made by the chemists play also an important part in improving nutrition. They preserve our foods and decreases wastage as well as making the taste and appearance of our food more pleasant.

In the vitamin field the efforts of the chemists are especially large. Since about 1930 chemists have isolated one after another vitamins in their pure form, determined their chemical nature and the most cases synthezised them. The most important now in commercial production are vitamin A made partial synthesis from B- ionine, vitamin D2 by irradiation of ergosterol, vitamin D3 by irradiation of 7-dehydrochlorosterol, vitamin B by total synthesis, riboflavin by a fermentation procedure, nicotinic acid and nicotin amide by synthesis, ascorbic acid from glucose by a series of chemical and biological stages and vitamin B12 by fermentation. All the vitamins are produced more cheaply than they could be obtained for natural sources.

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Text 14. Illegal Drugs

Drugs are any chemical substances that effect a physical, mental, emotional, or behavioral change in an individual. Drug abuse is the use of any licit or illicit chemical substance that results in physical, mental, emotional, or behavioral

impairment in an individual. Illegal drugs are drugs whose possession and use is forbidden by law due to their harmfulness and, usually, lack of therapeutic use. The most common illegal drugs are: cannabis, cocaine, hallucinogens, opium, heroin, depressants, stimulants, etc.

In many countries, drug smuggling carries a severe penalty, including the death penalty. In 2011, two people were sentenced to death in Malaysia for trafficking 1 kilogram of cannabis into the country. On March 30, 2012, three Filipinos were executed by the Chinese government for drug trafficking.

In the USA, Federal law states that first time offenders be sentenced to a minimum term of imprisonment averaging 1 to 3 years.

Drug trafficking is widely regarded as the most serious of drug offences around the world.

Peterson N. Herbs and Health.

Text 15. Herb

The word "herb" comes from the Latin word "herba", meaning grass, green stalks, or blades. Botanists use the word to mean any plant with soft, succulent tissues.

Some herbs are used in cooking to flavour foods. Others give scents to perfumes. Still others are used for medicines. Some herbs, such as balm and sage, are valued for their leaves. Saffron is picked for its buds and flowers, fennel seeds are used in relishes and seasoning. Vanilla fruit pods yield vanilla flavouring. Ginseng is valued for its aromatic roots.

People often grow herbs in their gardens. Many kinds of herbs can also be raised indoors. The plants grow well with little care. Gardeners plant herbs in good soil that has been well cultivated. The leaves, stems, or seeds of herbs can be used fresh, or they can be dried for later use. Dried herbs can be pounded to a fine powder, placed in airtight containers, and then stored.

Although herbs have little food value, they make food tasty and more flavourful. Cooking with herbs has become a culinary art, and it adds great variety to any menu.

Peterson N. Herbs and Health.

Text 16. Homeopathy

Homeopathy is a system of medicine whose principles are even older than Hippocrates. It seeks to cure in accordance with natural laws of healing and uses medicines made from nature.

Homeopathy was "discovered" in the early 1800s by German physician, Samuel Christian Friedrich Hahnemann.

Homeopathy is a system of medicine that uses "natural" remedies made from animal, vegetable, and mineral substances. These remedies are prepared in such a way that they are non-toxic and do not cause side effects.

Homeopathic medicine is prescribed according to the law of similar and age-old principle that recognizes the body's ability to heal itself. After being founded homeopathy spread rapidly throughout Europe. It was extremely popular in many countries in the nineteenth century.

Clinical evidence accumulated over more than 150 years of use demonstrates that homeopathic medicine is the viable alternative to standard medicine.

Peterson N. Herbs and Health.

Text 17. Tablets Preparation

A tablet is the most common form of medication for drug administering in the dry state.

A tablet shows definite properties of mechanical strength and is also characterized by a definite rate of disintegration when brought into contact with water.

It is generally observed that tablets can be made easily from certain drugs, such as sodium chloride and other alkali halides, even without the addition of auxiliary substances.

For some other drugs, such as lactose, the addition of auxiliary substances is found to be necessary to overcome certain difficulties in their tabletting. Some difficulties are occasionally experienced in the process of tabletting certain materials because of persistent binding or sticking in the tablet machine.

Application of pressure during tabletting plays a very important role. Correct pressure must be applied in order to avoid unnecessary complication. Tablets which should dissolve in the mouth must be more strongly compressed than tablets for internal administration.

Peterson N. Herbs and Health.

Text 18. Patches

Patches are flexible pharmaceutical preparations of varying sizes, containing one or more active substances They are intended to be applied to the skin. They make active substances pass through the skin and circulate in the organism.

Patches normally consist of active substances and an outer covering supporting the preparation. Patches are covered by a protective liner, which is removed before applying a patch to the skin. The protective liner generally consists of a sheet of plastic or metal material. When removed, the protective liner does not detach the preparation. The outer covering is a backing sheet impermeable to the active substance and to the water, designed to support and protect the preparation.

The outer covering may have the same dimensions as the preparation or it may be larger. In the latter case the overlapping border of the outer covering is covered by pressure-sensitive adhesive substances which assure the adhesion of the patch to the skin.

The preparation contains the active substances together with excipients intended to modify the rate and to enhance transdermal absorption. It may be a single layer or multi layer solid or semi-solid matrix.

The patch adheres firmly to the skin by gentle pressure of hands or the fingers and can be peeled off without causing appreciable injury to the skin.

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Text 19. Anabolic Steroids

Anabolic steroids, technically known as anabolic-androgenic steroids (AAS), are drugs that have similar effects to testosterone in the body. They increase protein within cells, especially in muscles.

Anabolic steroids increase the rate of protein synthesis within cells. The building of cellular tissue is especially noticeable in muscles. Anabolic steroids influence masculine characteristics such as the growth of the vocal cords and body hair.

Anabolic steroids have been attractive to athletes and bodybuilders because they increase the size and strength of muscles. They also increase aggressiveness and competitiveness, which can be desirable in sports.

Anabolic steroids may be prescribed to promote appetite, stimulate bone growth, to lessen the effects of muscle wasting from chronic diseases, such as cancer or AIDS. The drugs are available as oral pills, injections, and skin patches.

Anabolic steroids can cause serious side effects. In men, the use of large amounts of anabolic steroids can cause the body's natural production of testosterone to decrease or even stop completely.

Women who use anabolic steroids may develop masculine characteristics such as increased facial and body hair and a deepened voice.

Prolonged use of anabolic steroids may lead to heart disease, liver damage, and other serious disorders.

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Text 20. Vitamins

The compounds known as vitamins are essential for human nutrition. Vitamins are considered micronutrients as the human body requires only small amounts at any given time. All kinds of vitamins can be found in plants and animals. The essential vitamin E has the role of an antioxidant in the body, while the vitamin D has a hormone like role. Once they are absorbed into the body, the vitamins are assimilated into the body becoming parts of the cells, part of enzymes and hormones, as well as becoming part of the muscles, the blood and the bones.

The length of residence of the vitamins in the body is different for various vitamins. Some types of vitamins are utilized over a long period of time, while some vitamins are utilized as soon as they are assimilated.

There are two major groups of the vitamins, the first are known as the water-soluble vitamins - these vitamins have short residence times in the human body, the second group is the fat-soluble vitamins - this class of compounds stays for longer periods of time in the body.

In times of illness, the amount of vitamins the body needs greatly increases. This increase may need to be replenished via supplementation.

Peterson N. Herbs and Health.

Text 21. Propolis

Derived from two Greek words “pro” meaning before and “polis” meaning a town or a city, the term “propolis” is often attributed to the famous Greek Philosopher Aristotle (384 B.C. - 322 B.C.).

While the medicinal values of propolis have been discovered and used relatively recently by medical practitioners across the globe, it would be interesting to note that propolis or the bee glue was officially prescribed by pharmacopeias as well as physicians in London as early as in the 17th century. Although, propolis has been officially used to treat several ailments since the 17th century, its usage became popular in the late 20th century. Incidentally, both scientists as well as the laymen are now showing a renewed interest in the use of propolis. The curious medicinal item is a brownish substance that is collected by the bees from buds of the poplar and coniferous trees and used to fill up the cracks and other unwanted openings in their hives.

According to the latest research propolis possesses greater anti-bacterial features than that found in penicillin and other regular antibiotic medicines found in the drug stores. Advocators of propolis claim that the substance functions actively to enhance the body's natural resistance to various infections by kindling

the immunity system. They point out that the propolis therapy is especially beneficial in curing diseases like tuberculosis, duodenal ulcers and even gastric disorders. They further assert that when propolis or its derivatives are applied externally in the form of creams, they help in curing different kinds of skin diseases, particularly which are caused by bacteria or fungi.

Peterson N. Herbs and Health.

Text 22. Aromatherapy

Aromatherapy is a very old healing art using essential oils, which was used by the Chinese as early as in 4,000 B.C. The Chinese were the first to make use of essential oils for remedial purposes. It is also known that the ancient Egyptians used aromatics for curative purposes, counting various forms of massage. In addition, they also employed aromatics as cosmetics. In fact, it has been possible for us to learn about the extensive essential oil use by ancient Egyptians, because they had carved several formulas used by them on the walls of their stone temples.

However, it was as late as the 17th century when the very first medical manual describing the several use of oils derived from plants was published. By the time we progressed into the 19th century, use of chemicals that replaced the plant oils became very popular and this nearly brought the use of unadulterated natural oils to a halt (прекратить использования натуральных масел).

It may be noted that aromatherapy or healing with aromatic essential oils helps to enhance (улучшает) the life’s quality on physical, emotional as well spiritual levels. In effect, aromatherapy is based on the use of the fragrant essential oils - the crucial essence of life of sweet-smelling plants as well as flowers, which are present in a pure and intensified form.

Peterson N. Herbs and Health.

Text 23. Side Effects of Medicaments

Most medicaments within a class produce similar benefits, side effects, adverse reactions and interactions with other medicaments and substances.

Adverse reactions or side effects are symptoms that may occur when you take a medicament. They are effects on the body other than the desired therapeutic effect. The term side effects implies expected and usually unavoidable effects of a medicament. Side effects have nothing to do with the medicament's intended use.

For example, the generic medicament paregoric (болеутоляющее средство) reduces intestinal cramps and vomiting. It also often causes a flushed face. The flushing is a side effect that is harmless and does not affect the medicament's therapeutic potential. Many side effects disappear in a short time without treatment.

The term adverse reaction is more significant. For example, paregoric can cause a serious adverse allergic reaction in some people. This reaction can include hives, rash and severe itch. Some adverse reactions can be prevented.

Most adverse reactions are minor and last only a short time. With many medicaments, adverse reactions that might occur will frequently diminish in intensity as your body adjusts to the medicine.

The majority of medicaments, used properly for valid reasons, offer benefits that outweigh potential hazards.

Peterson N. Herbs and Health.

Text 24. Medicaments By Prescription

At times of illness, the temptation to skip the visit to a doctor and recover with the help of medicines bought over the counter is great. Often, this works well enough - especially for common everyday ailments - but it is not safe to indulge in this habit for more serious cases.

The medicines a doctor gives you to manage pain, treat or cure a health condition such as diabetes, pain, cancer, mental disease or common infections, are licensed and have gone through a stringent testing process. They cannot be obtained from a chemist without producing a doctor's prescription.

This law does not regulate herbal preparations, vitamins, minerals and food supplements - which fall under the category of over-the-counter (OTC) drugs and can be bought without a prescription.

Often, a much lower strength of a drug is sold as an OTC, while the higher strengths require a prescription to be obtained. People taking OTC drugs should be careful about the possible negative effects and also of the reactions these medicines have to the prescription drugs they may be taking.

Prescription medicaments are: anti-invectives' (antibiotics such as penicillin); analgesics (pain killers); cardiovascular medicaments; diuretics; mental health medications (antidepressants, antipsychotics, and anti-anxiety medicaments).

Peterson N. Herbs and Health.

Text 25. Pharmacology

Pharmacology is the scientific study of the effects chemicals have on living things. The scientists who study such chemical effects are known as pharmacologists. Pharmacists consider all chemicals that affect living things to be drugs. Much of their study deals with how drugs modify tissue and organ functions. Pharmacology differs from pharmacy which is a profession concerned mainly with preparation and distribution of drugs for public use.

Pharmacology is divided into several fields. Pharmacodynamics studies the effects of drugs on living organisms. Pharmacokinetics deals with how the body takes up, distributes, and eliminates drugs. Toxicology deals with poisons and their effects, detection, and treatment. Clinical pharmacology examines the usefulness and poisonous qualities of drugs in the human body. Pharmacologists may work for universities, hospitals, government agencies, or pharmaceutical companies.

People have used plants and minerals to relieve or cure diseases since ancient times. Through years people have used such plants as the poppy, belladonna and foxglove to treat certain conditions. The science of pharmacology began during the 1900s with the rise of chemistry. For the first time, scientists could analyze crude plant and mineral materials that acted on living tissues. By separating and studying the part of the plant or mineral that caused a reaction, scientists could then use the materials to make drugs.

Peterson N. Herbs and Health.

Text 26. Pharmacopeia

Pharmacopeia, also spelled pharmacopoeia, is a book containing standards for drugs and drug products. It includes a statement of their properties, the doses in which they may be safely taken, and the standards that determine their strength and purity. The volume is compiled usually under the highest professional, sometimes governmental, authority.

Today, almost all nations recognize the need for pharmacopeias. Pharmacopeias are continually revised and updated.

The first pharmacopeia was the Nuremberg Pharmacopeia. It was published in Germany in 1542. The first pharmacopeia published in the United States appeared in 1778. It was designed for use in the army. The earliest British pharmacopeia dates back to 1820. In 1906, under the Federal Food and Drugs Act, "The Pharmacopeia of the United States of America" was made a legal standard, now called "The United States Pharmacopeia". It is revised continuously. The Laws of Congress enforce its requirements.

Peterson N. Herbs and Health.

Text 27. What Is Toxicology?

The definition of toxicology is "the study of the adverse effects of chemicals or physical agents on living organisms".

These adverse effects may occur in many forms, ranging from immediate death to subtle changes not realized until months or years later. Knowledge of how toxic agents damage the body has progressed along with medical knowledge. It is now known that various observable changes in anatomy or body functions actually result from previous unrecognized changes in specific biochemicals in the body. The historical development of toxicology began with early cave dwellers who recognized poisonous plants and animals and used their extracts for hunting or in warfare. By 1500 BC, written records indicated that hemlock, opium, arrow poisons, and certain metals were used to poison enemies. With time poisons became widely used and with great sophistication. Notable poisoning victims include Socrates, Cleopatra, and Claudius.

The 20^{th} century is marked by an advanced level of the understanding of toxicology. DNA (the molecule of life) and various bio-chemicals that maintain body functions were discovered. Our level of knowledge of toxic effects on organs and cells is now being revealed at the molecular level.

Peterson N. Herbs and Health.

Text 28. Medication

A medication or medicine is a drug taken to cure and/or ameliorate any symptoms of an illness or medical condition, or may be used as preventive medicine that has future benefits but does not treat any existing or pre-existing diseases or symptoms.

Dispensing of medication is often regulated by governments into three categories - over-the-counter (OTC) medications, which are available in pharmacies and supermarkets without special restrictions, behind-the-counter (BTC), which are dispensed by a pharmacist without needing a doctor's prescription, and prescription only medicines (POM), which must be prescribed by a licensed medical professional, usually a physician.

In the United Kingdom, BTC medicines are called pharmacy medicines which can only be sold in registered pharmacies, by or under the supervision of a pharmacist. These medications are designated by the letter P on the label. The range of medicines available without a prescription varies from country to country.

Medications are typically produced by pharmaceutical companies and are often patented to give the developer exclusive rights to produce them. Those that

are not patented are called generic drugs since they can be produced by other companies without restrictions or licenses from the patent holder.

Peterson N. Herbs and Health.

Text 29. Avens

Alternative common name(s): HERB BENNET
Botanical name: GEUM URBANUM
Family: ROSACEAE
Part used: Leaves and stems

Constituents and uses: One of the most useful astringent remedies to help settle over-activity in the bowel. It contains tannins, bitters and essential oils which all contribute to this action. It works directly on the digestive tract walls to reduce the irritation (which may be due to a variety of causes, such as infection, excessively rich food, nervous tension, etc) and thus soothes the muscular over-activity resulting from the irritation, which causes the hurrying of poorly digested food through to the bowel.

It is effective in practically all "domestic" cases of diarrhea. In acute cases, an infusion should be taken every 3 hours for rapid benefits. It should be stopped as soon as the bowel activity is normal, as the strongly astringent action then becomes undesirable.

Peterson N. Herbs and Health.

Text 30. Burdock

Botanical name: ARCTIUM LAPPA Family: COMPOSITAE
Part used: Root

Constituents and uses: This is one of the main alterative remedies used fir skin problems such as eczema and psoriasis, and localized infections such as boils and abscesses. It contains bitters, volatile oils and tannins and its main action is in stimulating the digestive organs and the eliminatory organs. It is an ingredient of the well-known "dandelion and burdock" drink, which now made commercially, is only a fizzy drink. When made at home from the real dandelion and burdock roots, it would have an excellent "inner cleansing" action.

It can be taken as a decoction, 3 times daily, and is best made fairly weak initially, as it is very effective. It can produce the unpleasant symptoms of "toxic crisis" if taken in large doses. Toxic crisis refers to the condition when the symptoms seem to get worse before they start to get better.

Peterson N. Herbs and Health.

Text 31. Chamomile

Common name: CHAMOMILE-GERMAN
Botanical name: MATRICARIA RECUTITA
Family: COMPOSITAE
Part used: Flowers

Constituents and use: There are two kinds of Chamomile used medicinally. The German Chamomile is the most widely available and has very similar properties to the other, which is known as Roman Chamomile. Both have a similar scent, emitted from the oils in the plants.

The title "Mother of the Gut" suggests the respect in which German Chamomile is held. It is anti-inflammatory, and will help soothe gastric irritation, dyspepsia, flatulence and colic: it also has a bitter constituent which helps stimulate an under-active digestion. It has a gentle relaxing influence on the nervous system generally, and is particularly useful where nervous tension is affecting the digestive system. It may help women suffering from painful periods and is useful in any problems with children where an over-excitable nature is causing difficulties.

It is taken as an infusion as required – it makes a pleasant alternative to ordinary tea. It can be obtained as an essential oil – a drop of this can be taken on a sugar cube or in honey. This can be diluted 1:20 with almond oil and used as an anti-inflammatory massage oil. Alternatively it can be added to a bowl of hot water and used as a steam inhalation for irritation and inflammation in the respiratory tract.

Peterson N. Herbs and Health.

Text 32. Coltsfoot

Common name: COLTSFOOT
Botanical name: TUSSILAGO FARFARA
Family: COMPOSITAE
Part used: Flowers and leaves

Constituents and uses: Unlike many of the expectorant remedies which have an irritating effect, Coltsfoot helps to ease the irritation and tightness connected with chest infections where there is particularly a dry, unproductive cough - typically the "barking" cough. This can be painful and persistent and responds better to Coltsfoot than practically any other remedy. Children who are kept awake at night by a persistent cough are usually greatly helped by it. It contains bitters,

glycosides and a generous amount of the mineral zinc. It is thought that this may well contribute to the plant's beneficial properties as it seems to be vital in the body's defences against infection.

An infusion of either the flowers or the leaves should be taken 3 times a day.

CAUTION: recent research has shown the presence of two alkaloids in the young flowers which when tested on rats caused liver cancer. Although these compounds exist on low concentrations in the flowers and leaves, any prolonged medical use is not advised. Coltsfoot is an ingredient of some herbal tobaccos. These should be avoided as should all smoking.

Peterson N. Herbs and Health.

Text 33. Comfrey

Common name: COMFREY
Alternative common name(s): KNITBONE
Botanical name: SYMPHYTUM OFFICINALE
Family: BORAGINACEAE
Part used: Leaves and roots

Constituents and uses: Comfrey is the most useful of the healing remedies. Its constituents include astringent tannins, soothing mucilage, resin and a substance called allantoin. This has the ability to stimulate the growth of new cells, by speeding up the rate at which DNA, the "blueprint" of the cell, is produced: after this stage, all other parts of the cell follow automatically.

The leaves can be taken internally for stomach and duodenal ulcers, where the tannins and mucilage help calm any inflammation; the allantoin will heal the eroded area. This remedy is also appropriate and healing action.

Externally the root leaves can be used as a poultice over any clean wound, or deeper problem such as tendon and ligament damage. Traditionally it has been used to heal broken bones – the root poultice dries to a very hard consistency, providing valuable support in the days before plaster casts were available. The ointment can be used regularly in place of a poultice – it is a very useful part of every home's first-aid-lit for minor injuries.

Caution: Concern has been expressed over the safety of taking Comfrey internally, due to a constituent alkaloid which is known to be toxic. Experiments using the isolated alkaloid have shown it to be damaging to the liver. Although there has never been any evidence of the whole herb causing similar damage, I must advice caution in its use. If you are considering using the herb internally, contact a qualified herbalist for advice.

At present, Comfrey is still legally available as a loose herb, but it ay be withdrawn from licensed herbal medicines (those formulations that are available over the counter in health shops) in the future.

There are no restrictions no restrictions on using Comfrey externally – it is totally safe when aoolied the skin.

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Text 34. Dandelion

Common name: DANDELION
Botanical name: TARAXACUMU OFFICINALE
Family: COMPOSITAE
Part used: Leaves and root
Constituents and uses:

Leaves

One of the most useful diuretic remedies. It is particularly beneficial in fluid retention due to heart problems, as it contains a useful amount of the mineral potassium. This is vital for healthy function of the heart muscle, but is often lost via the urine when diuretic drugs are used.

Dandelion leaves, with their natural content of potassium make up the loss automatically. They are also useful for other problems where the kidneys need to be stimulated, such as urinary infections or pre-menstrual fluid retention. Take an infusion 3 times daily.

Root

Dandelion root is a good liver stimulant. This makes it useful for a wide range of problems. It will improve the appetite and stimulate sluggish digestive functions due to its bitter properties. It helps in problems such as jaundice and gall-bladder disease. It also has a gentle laxative effect and will help the liver's detoxifying functions – useful in rheumatism and arthritis, or any other illness where a build-up of waste products is contributing to the problem.

The liver is the main organ which has the job of eliminating alien substances, such as artificial additives in the food we eat, or airborne pollution such as chemical fumes. Dandelion root will help support the health of people who are particularly susceptible to these substances.

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Text 35. Elder

Common name: ELDER
Botanical name: SAMBUCUS NIGRA
Family: CAPRIFOLIACEAE
Part used: Flowers and berries
Constituents and uses:
Flowers

The flowers contain a volatile oil that gives the characteristic scent, also a bio-flavonoid that helps to strengthen the walls of damaged blood-vessels. The main action a of the flower is one the circulation – it helps to promote perspiration and is very useful when taken as a tea to ease a feverish cold or the flu. A second property is that it soothes the condition of inflamed nasal passages and helps relieve catarrh – I recommend it as a very pleasant drink for anyone who has long-term, hard-to-shirt catarrh or sinusitis. However, it is not an anti-infective remedy and must be combined with one if there is an infection present.

Berries

Elderberry wine is a traditional remedy for rheumatic and arthritic problems; it has a mild laxative and diuretic effect.

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Text 36. Eyebright

Common name: EYEBRIGHT
Botanical name: EUPHRASIA OFFICINALIS
Family: SCHROPHULARIACEAE
Part used: Leaves

Constituents and uses: As its name suggests, this plant long been used as a topical application for eye irritations. It contains tannins, resins and volatile oil which have astringent and anti-inflammatory properties. These help problems due to allergic reactions, airborne pollution (for example, smoky atmospheres) and conjunctivitis.

When used as a gargle, it will help catarrhal and inflammatory problems of the throat and nose; take internally for the same.

For bathing the eyes, a half-strength infusion should be made and allowed to cool. This must be strained thoroughly – a coffee filter-paper is a suitable – then put in an eyebath and used to irrigate the whole surface of the eye. If there is an infection present the eyebath must be immersed in boiling water and the solution changed after use on the first eye. The strength of the infusion may be increased

gradually, if this is necessary, to gain maximum benefit from the remedy. A gargle should be made from a full-strength infusion. This can be swallowed after gargling. Eyebright is best combined with an equal quantity of Golden Seal when used in an eyebath for eye infections.

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Text 37. Feverfew

Common name: FEVERFEW
Botanical name: TANACEUTUM PARTHENIUM
Family: COMPOSITAE
Part used: Leaves

Constituents and uses: This remedy has two different, equally useful applications. It has been tested in migraine clinics and found to be successful in about seventy per cent of migraine cases – achieving at least partial improvement and often total remission of the problem. It helps to open up the constricted blood-vessels in the brain that cause the pain in the majority of migraine cases. It contains volatile oil and tannin.

The anti-arthritic properties were discovered when migraine suffers taking Feverfew found that their arthritis was also improving. It is one of the few anti-inflammatory remedies that is likely to bring about an improvement when taken by itself rather that in combination with other remedies – other anti-inflammatory herbs may help improve the condition in other ways.

It is best taken in the spring and summer as freshly picked leaves – one or two large leaves – one or two large leaves daily should be put in a sandwich (to mask the bitter taste, and the possible irritating effects on the mouth). The plant dies off in the winter. Capsules containing the freeze-dried leaves are available, alternatively the dried leaves can be taken as an infusion.

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Text 38. Garlic

Common name: GARLIC
Botanical name: AllIUM SATIVUM
Family: LILLICEAE
Part used: “Clove” – in botanical terms, a corm

Constituents and uses: This plant is best known for its culinary properties, but is highly beneficial as preventative medicine when taken regularly. An

important point, however, is that to retain its greatest benefit, it must be eaten raw – cooking destroys most of its therapeutic properties. It contains a high amount of volatile oil and when the characteristically odoured, actively antiseptic principle of the plant. This is of great benefit in the treatment of infections in the digestive tract, and has the remarkable ability to act selectively against harmful micro-organisms here, while leaving intact the beneficial bacterial populations which aid the digestive process.

As the constituents are absorbed into the bloodstream and dispersed around the body, the antiseptic principles, when passing through the blood-vessels in the lungs, diffuse out through the lung membranes and are "breathed out" of the body. The remedy is therefore excellent against respiratory infections – both deep in the lungs and throat and higher up in the nasal passages or sinuses. This explains why the smell of Garlic is so persistent – it is due to the way that it comes out of the body, rather than how it goes in.

The second great benefit of the plant is its importance as an aid to circulatory problems. It contain a "healing" mineral called germanium and s group of substances which help to control fat levels in the bloodstream – an important action, as fat deposition is a great problem in hardening of the arteries, angina, and many cases of high blood-pressure. It also helps to prevent thrombosis by counteracting the tendency of clot-forming cells to stick together within the blood-vessels.

Up to one clove of fresh raw Garlic should be taken daily, in divided doses, for the benefit of one's general health. If the taste is found to be really unacceptable, Garlic Oil capsules can be substituted – 2 or 3, if taken at night, will have passed out the body by the following morning.

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Text 39. Ginger

Common name: GINGER
Botanical name: ZINGIBERIC OFFICINALE
Family: ZINGIBERACEAE
Part used: Root

Constituents and uses: One of the strongest of the aromatic remedies. It contains volatile oils and phenols and has a strong stimulant action on the digestion and circulation.

It helps to calm flatulence and colic but, although less hot than cayenne, is best initially given in small doses, as it can be irritating to the stomach in large doses. One recently discovered benefit is the ease it brings to sufferers of travel-

sickness – it seems to have a directly soothing effect to prevent vomiting and dizziness.

It has a warming, anti-chilling effect on the whole circulation, promoting blood-flow to the extremities, and is useful internally and locally for problems related to poor circulation due to cold weather, typically chilblains.

Make an infusion of the finely sliced fresh root of a strength to suit individual taste. Alternatively, use well-preserved powdered ginger – it should still have the characteristic aromatic scent.

For travel-sickness, a small piece of crystallized ginger can be made and added to a bowl of warm water. Immerse the hands or feet for about 5-10 minutes. If the bath causes stinging or any broken skin, add more water until an acceptable dilution is reached.

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Text 40. Hops

Common name: HOPS

Botanical name: HUMULUS LUPULUS

Family: CANNABINACEAE

Part used: Strobiles – the fruiting-body which appears after flowering

Constituents and uses: The papery strobiles contain resins, bitters and tannins. Originally used in ale to enhance its preservation properties.

It has two main uses in modern herbal medicine: the stimulating effect of its bitter properties on the digestion; and its soothing and relaxing effects on the muscular activity of the digestive system and on the nervous system generally.

It is useful in the treatment of colic, colitis and irritable bowel (which is often linked to nervous tension), plus general nervous tension and insomnia.

Make an infusion – initially weak due to the strength of the taste – to take 3 times daily or at night. A traditional way of bringing about restful sleep is with he use of a hop pillow – simply a small pillow-shaped cotton bag, filled with dried hops.

Caution: Due to the effectiveness of its relaxing, sedative properties, it should not be used in cases of depression – it may worsen rather than relieve this problem.

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Text 41. Limeflowers

Common name: LIMEFLOWERS
Botanical name: TILIA CORDATA or PLATYPHYLLOS
Family: TILIACEAE
Part used: Flowers and leaf-like bract

Constituents and uses: The lime is a well-known city tree, scenting the air when flowering in July. This scent will be recognized as the same as in Limeflower tea. The flowers contain volatile oils, tannins, mucilage, saponins and flavonoids, and the main actions are on the nervous and circulatory systems. It is a gentle relaxing are on the nervous and circulatory systems. It is a gentle relaxing remedy, soothing anxiety and tension and aiding sleep when remedy, soothing anxiety and tension and aiding sleep when taken at night. It is a favourite remedy for tension, restlessness and over-excitability in children. It can be used with confidence to combat any childhood illness where these characteristics are contributing to the overall problem.

It helps to open up the circulation of blood to the skin, which will encourage perspiration in cases of feverishness. It will also reduce high blood-pressure by reducing tension in the muscle layer of the blood-vessels. It is one of the few remedies reputed to have a healing effect on damaged linings in blood-vessels.

An infusion can be taken 3 times daily, or at night to promote restful sleep. For infants, if the infusion is not to be taken by mouth, it can be added to the bath-water and they will absorb it through their skin. It is a successful method of tired, fractious babies.

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Text 42. Marigold

Common name: MARIGOLD
Alternative common name(s): ENGLISH POT MARIGOLD
Botanical name: CALENDULA OFFICINALIS
Family: COMPOSITAE
Part used: Flowers

Constituents and used: This remedy is an invaluable antiseptic and healer. It contains bitters, oils and resins. It works well against fungal infections, and is particularly useful for the athlete’s foot/thrush-type infections that affect skin and mucous membranes.

It has a toning, anti-inflammatory and mucous membranes. It has a toning, anti-inflammatory and healing influence when applied topically to most skin problems, such as slow-healing wounds and minor burns and scalds; it is worth trying in cases of eczema and psoriasis.

It is also beneficial as a local application to varicose veins and haemorrhoids. Internally, it is used in the treatment of gastric and duodenal ulcers.

An infusion should be taken internally 3 times daily. A double-strength infusion can be used as a lotion to apply to skin problems. Alternatively, a very convenient form of local application is marigold cream or ointment.

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Text 43. Myrrh

Common name: MYRRH
Botanical name: COMMIPHORA MOLMOL
Family: BURSERACEAE
Part used: Resin (dried gum)

Constituents and uses: This remedy has been prized for thousands of years for its anti-microbial properties. It contains bitters, oils, gums and resins. It has a very “antiseptic” smell and taste. It works in a twofold way: firstly, it has a direct action to destroy bacteria that comes into contact with it, and secondly, it helps stimulate the body’s natural immune powers – the white cells of the blood.

Use as a gargle for mouth problems: aphthous ulcers, gingivitis, abscesses, tonsillitis, etc. Externally, apply to skin infections – spots, boils, abscesses, and early stages of cold sores.

The resin does not dissolve well in water, so the most effective and convenient preparation is the alcoholic tincture, still on the BP list and available at most chemist shops.

This should be diluted – use about ½ a teaspoon of the tincture to 3 tablespoons of warm water as a gargle. Sip after gargling in order that the immune system can benefit.

Apply to skin infections at the same dilution or more dilute, if it stings, on broken skin. Use full strength on unbroken skin.

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Text 44. Slippery Elm

Common name: SLIPPERY ELM
Botanical name: ULMUS FULVA
Family: ULMACEAE
Part used: Powdered inner bark

Constituents and uses: The remedy most widely applicable to all digestive problems. It contains astringent tannins, but most of the benefit is due to the mucilage in the bark. When the powder is mixed with liquid it forms a gel consistency, which, when swallowed, puts a protective mucilaginous lining over the oesophagus and stomach. This help directly with an anti-inflammatory and calming action and it allows underlying healing to progress. It is very soothing after the discomfort of vomiting, and will help reduce irritation and over-activity in the bowel, via a nerve reflex bulking laxative remedy.

Take as often as required for stomach problems: add 1 teaspoon of the powder to a little cold milk, water or juice. When mixed to form a smooth paste, top with warm liquid, stirring constantly. The consistency can be varied to suit individual taste.

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Text 45. White Willow

Common name: WHITE WILLOW
Botanical name: SALIX ALBA
Family: SALICACEAE
Part used: Bark

Constituents and uses: The name of salicylic acid (aspirin) was derived from the botanical name of the willow family: this plant is a good natural source of a similar substance. Taken in the natural form, side-effects are less likely than hen taking artificial aspirin. The benefits, however are similar: White Willow is used for its anti-inflammatory, anti-fever and mild analgesic properties. It is used in the treatment of rheumatism and arthritis to reduce pain and inflammation. It will help bring down a dangerously high temperature. It also contains tannins, which help to reduce inflammation in the digestive system.

A weak decoction should be taken 3 times daily, and is most effective when combined with other anti-rheumatic remedies, ideally Meadowsweet.

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Text 46. Witch Hazel

Common name: WITCH HAZEL
Botanical name: HAMAMELIS VIRGINIANA
Family: HAMAMELIDACEAE
Part used: Bark, twigs, leaves

Constituents and uses: Best known in the clear liquid form Distilled Witch Hazel. This should occupy a place in every first-aid box. The main constituents are tannins, though there is also a volatile oil and bitters. Externally the remedy is anti-inflammatory, soothing and cooling, and is very useful for any minor injury.

It will ease bruises and swellings and will help staunch blood-flow from small wounds: it also allays the discomfort of varicose veins and haemorrhoids. The distilled preparation should not be taken internally, but an infusion of the leaves can be made to soothe digestive problems where irritation and mucus discharge is present.

It should be taken 3 times daily.

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Text 47. Yarrow

Common name: YARROW
Alternative common name(s): MILFOIL
Botanical name: ACHILLEA MILLEFOLIUM
Family: UMBELLIFERAE
Part used: Leaves

Constituents and uses: This plant has a wide range of constituents, including oils, bitters, tannins, resins and salicylates. Its main action is one the circulation: it helps to improve circulation to the skin by opening up the surface blood-vessels. This action promotes perspiration and is very useful in helping to control dangerously high temperatures. It also results in a lowering of ,blood-pressure, and helps to improve the condition of damaged blood-vessels. Yarrow is also useful in cases of varicose veins.

It can stimulate the appetite and aid the digestion. Its astringent properties may be useful, when taken internally, for heavy menstrual blood-loss, and when applied externally it will help staunch the flow of blood from wounds. It has a good reputation as a healing agent in the treatment of slow and stubborn wounds.

An infusion should be taken 3 times daily. A infusion can be used externally as a lotion.

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Text 48. Valerian

Common name: VALERIAN
Botanical name: VALERIANAE OFFICINALIS
Family: VALERIANACEAE
Part used: Root

Constituents and uses: The volatile oil in this plant gives it the characteristic smell that cats love! It also contains resins and gums and on humans it has a relaxing, calming action. It can be used for all types of nervous tension, anxiety, insomnia, etc, and will help to relax the muscle tension that may cause cramp, or colic if in the digestive system. It is very useful for reducing high blood-pressure, particularly if nervous tension is one of the causes. Make a decoction of the root, to take 3 times daily.

Caution: Occasionally, when taken in large amounts, it may have a stimulating rather than a relaxing effect.

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Text 49. Angelica

Common name: ANGELICA
Botanical name: ANGELICA ARHANGELICA
Family: UMBELLIFERAE
Part used: Leaf and root

Constituents and uses: This plant has a gentle warming stimulating action on the digestion, the lungs and the circulation. It can be safely used where stronger stimulants, such as **Ginger** or **Cayenne,** may be too irritating. The soothing and carminative volatile oil, giving the root in particular its characteristic scent, helps support the digestion appetite. Bitters and astringents also contribute to this. **ANGELICA** helps to loosen phlegm in the lungs, and helps protect against the harmful influence of cold and damp in lung disease. As a general warming circulatory remedy, it may help in many conditions where poor circulation is a factor.

The leaves can be prepared as an infusion and the root as a decoction. It should be taken 3 times daily.

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Text 50. Arnica

Common name: ARNICA
Botanical name: ARNICA MONTANA
Family: COMPOSITAE
Part used: Flowers

Constituents and uses: This plant is for external use only on unbroken skin, due to its toxicity when taken internally. It is a most useful plant for dispersing bruises and swellings due to minor injuries when applied over the affected area, provided that the skin is not broken. The bruise will fade and the swelling subside much more rapidly than otherwise, giving quicker relief of pain and discomfort, and speeding the healing process. The plant contains essential oils, bitters and astringents. It is available in cream form which makes a very convenient application. The cream can be used after applying distilled Witch Hazel-which has a strong astringent anti-inflammatory action. Follow up by using Comfrey poultice or ointment to heal the injury as quickly as possible. An infusion can be made from the dried flowers and applied in the same way as the cream.

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Text 51. Balm Of Gilead

Common name: BALM OF GILEAD
Alternative common name(s): POPLAR BUDS
Botanical name: POPULUS GILEADENSIS
Family: SALICACEAE
Part used: Leaf buds harvested while rightly closed.

Constituents and uses: The resin coating of these fragrant, sticky buds has a strong antiseptic and expectorant action. This remedy helps in all chest infections, to combat the infection directly and to help loosen the infected phlegm. The preparation of the buds is important –the resin does not dissolve well in water, so an infusion will not give the greatest benefit : an alcohol-based solution, such as made by adding 90ml vodka to 10 ml water, is much more effective. Soak 20kg (3\4oz) of the buds in this for 2 weeks, then be taken internally in doses of up to 1 teaspoon, 3 times a day. Alternatively,2 teaspoons of the tincture can be added to a bowl of boiling water, and the vapours inhaled to bring the evaporated constituents of the buds directly in contact with the lung tissue.

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Text 52. Cayenne

Common name: CAYENNE
Alternative common name(s): CHILLIES
Botanical name: CAPSICUM MINIMUM
Family: SOLANACEAE
Part used: Fruits

Constituents and uses: The hottest spice available! This remedy must be used with care, as too much can be irritating to the stomach when taken internally. The action mirrors the taste-it has strong warming and stimulating actions on the digestion and the circulation, and is used when there is a weakness or deficiency in either system. Sluggish dyspepsia and flatulence will respond, plus all the circulatory problems that are worsened by cold weather.

This remedy is also excellent for chills, generally, and respiratory problems that are associated with cold, damp weather. For internal use, a tea made with 1/8 a teaspoon of crushed cayenne to 220ml (1 cup) of water should be taken three times a day. A pleasant compound mixture of circulatory stimulants Known as "Composition Essence" is another very convenient way of taking cayenne. 1\4-1\2 a teaspoon can be added to hot drinks. Externally, the tea can be added to a small amount of warm water and used as a hand or footbath, very useful on broken skin.

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Text 53. Cascara

Common name: CASCARA Botanical name: RHAMNUS PURSHIANA
Family: RHAMNACEAE Part used: Bark

Constituents and uses: Cascara is useful in conditions of long-term sluggish constipation. It is one of a group of remedies containing substances known as anthraquinones which act by stimulating, to the point of irritation, the lining of the upper intestines : this produces a reflex activation of the muscles further along in the colon,which then results in a bowel motion.

The drawback of this treatment is that the muscle can go into an over-active state, causing griping pains and colic. However, cascara is one of the gentler remedies in the group, and can be described as a general digestive\intestinal tonic. It also contains bitters, which contribute to its tonic effects, and tannins which help modify the strength of the laxative action.

The bark is made into a decoction and taken at night to be effective the next morning. It may be combined with any of the carminative, anti-griping remedies for a more soothing-and palatable-drink.

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Text 54. Expectorant

Expectorant

An expectorant will help the production and elimination of phlegm from the lungs. There are two types: irritant expectorants, of which **Ipecacuanha** is the best-known example; and the soothing expectorants, such as **Coltsfoot.** The irritants work by reflex action from the stomach to the lungs; when the stomach lining is irritated, a reflex response is produced in the lungs-more mucus is produced as a protective mechanism. This is then cleared from the lungs by coughing-a means of getting rid of any harmful substances. The irritant properties of **Ipecacuanha** on the stomach are well known-in large doses it causes vomiting! The soothing expectorants have an apparently paradoxical action: soothing expectorants have an apparently paradoxical action: soothing any irritations and inflammation in the lungs, but helping to loosen right phlegm at the same time.

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Text 55. Laxative

Laxatives promote activity in the bowel. Many laxatives work on a reflex in the digestive tract: when the lining of the upper intestine (the duodenum) is irritated, the muscles in the bowel are stimulated by a nerve reflex to increase their activity. These laxatives work on the principle that the body is trying to speed up the elimination of the irritating substance to protect itself from further harm. The second type of laxative is one which works by creating more bulk of food for the muscles of the digestive tract to work on. The remedies in this group usually have a high starch or cellulose content, which when moistened swells to become a soft, slippery gel consistency. The lubricating action is another benefit, as it enables food to pass more easily along the digestive tract.

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Text 56. Hospital Pharmacy

Pharmacies within hospitals differ considerably from community pharmacies. Some pharmacists in hospital pharmacies may have more complex clinical medication management issues whereas pharmacists in community pharmacies often have more complex business and customer relations issues.

Because of the complexity of medications including specific indications, effectiveness of treatment regimens, safety of medications and patient compliance issues many pharmacists practicing in hospitals gain more education and training after pharmacy school through a pharmacy practice residency and sometimes followed by another residency in a specific area. Those pharmacists are often referred to as clinical pharmacists and they often specialize in various disciplines of pharmacy. For example, there are pharmacists who specialize in hematology/oncology, infectious disease, critical care, emergency medicine, toxicology, nuclear pharmacy, pain management, psychiatry, anti-coagulation clinics, herbal medicine, neurology/epilepsy management, pediatrics, neonatal pharmacists and more.

Hospital pharmacies can often be found within the premises of the hospital. Hospital pharmacies usually stock a larger range of medications, including more specialized medications. Hospital pharmacists require adequate training.

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Контрольна робота
І семестр 1 курс
I. Read the text. Translate it into Ukrainian (in written)

Herb

Herb is a low-growing plant that has a fleshy or juicy stem when it is young. The stems of some herbs develop hard woody tissue when they grow old. Most herbs are perennials. The tops of plants die each growing season, but the roots remain alive and produce new plants year after year. Some herbs are annuals. They live for only one growing season and must be raised from seed each year.

The word "herb" comes from the Latin word "herba", meaning grass, green stalks, or blades. Botanists use the word to mean any plant with soft, succulent tissues.

Some herbs are used in cooking to flavour foods. Others give scents to perfumes. Still others are used for medicines. Some herbs, such as balm and sage, are valued for their leaves. Saffron is picked for its buds and flowers, fennel seeds are used in relishes and seasoning. Vanilla fruit pods yield vanilla flavouring. Ginseng is valued for its aromatic roots.

People often grow herbs in their gardens. Many kinds of herbs can also be raised indoors. The plants grow well with little care. Gardeners plant herbs in good soil that has been well cultivated. They choose a sunny spot that is easily accessible. When herbs begin to grow, the gardener keeps the soil loose and free from weeds. The leaves, stems, or seeds of herbs can be used fresh, or they can be dried for later use. Dried herbs can be pounded to a fine powder, placed in airtight containers, and then stored.

Although herbs have little food value, they make food tasty and more flavourful. Cooking with herbs has become a culinary art, and it adds great variety to any menu.

II. Fill in the gaps using words and phrases from the text.

1. The … of some herbs develop hard … when they grow old.
2. Botanists use the word to mean any plant with soft, … tissues.
3. Some herbs are used in cooking to … foods.
4. When herbs begin to grow, the gardener … and free from weeds.
5. Although herbs have little …, they make food tasty and more flavourful.

III. Fill in prepositions where necessary.

1. The tops of plants die each growing season, but the roots remain alive and produce new plants year… year.
2. The word "herb" comes … the Latin word "herba".
3. Some herbs give scents … perfumes.
4. Saffron is picked … its buds and flowers.
5. The plants grow well … little care.

IV. Correct the wrong statements.

1. Annuals live for *some* growing seasons and must be raised from seed each year.

2. Vanilla fruit pods are valued for its aromatic roots.
3. Fresh herbs can be pounded to a fine powder, placed in airtight containers, and then stored.
4. Although herbs have immense food value, they make food tasty and more flavourful.
5. Gardening herbs has become a culinary art, and it adds great variety to any menu.

V. Give as much information as you can about "The development of modern Botany" (10-15 sentences) – in written.

VI. Fill in the gaps with the form of the article where necessary.

1. Herbarium is … organized collection of dried plants.
2. Herbaria serve … important function in … study of plants.
3. They offer … easy way to examine many different kinds of … plants of one particular … kind.
4. Each specimen is labeled with its name, … place and date of collection, … name of the collector.
5. … largest collection is held by … herbarium of the Royal Botanic Gardens in England.

VII. Fill in the gaps with the form of the pronoun where necessary.

1. The flowers of poppies are admired for … delicate beauty and gracefulness.
2. The tiny seeds have no narcotic properties. … also yield oil used in preparing some foods for human consumption.
3. The Iceland poppy is widely cultivated in gardens. … long-lasting flowers are various shades.
4. Opium comes from the young capsules of the opium poppy where seeds develop. To obtain …, workers scratch the capsules late in the day.
5. The milky juice that seeps out solidifies overnight, and is collected the next day. … takes 120,000 capsules to yield about 10 to 18 kilograms of opium.

VIII. Complete the table with the correct form of the adjective:

Positive Degree	Comparative Degree	Superlative Degree
Good	*better*	*The best*
Bad		
Little		
Much/many		
long		
Famous		
Difficult		
Pretty		
Hot		

IX. Write the readings in words:

Example: 375 –three hundred and seventy five

1. 305 –
2. 13^{th} –
3. 2014 (year) –
4. 2.35 –
5. 1/8 -

X. Underline the correct form of the verb.

1. Their friends *go / are going* for a walk in the yard daily.
2. I usually *dress / am dressing* at seven o'clock.
3. We *discuss / are discussing* a difficult problem now.
4. *Are/ Do* they *speaking / speak* English now?
5. I'll stay here until he *returns / will return*.

XI. Rewrite the following sentences in the Passive Voice.

Example: The girls have prepared this delicious cake (cake).
– The delicious cake has been prepared by the girls.

1. The students wrote these interesting texts about the classes.
2. Many people study English at language schools.
3. Bad sleeping affects productivity and health.
4. The students will prepare their assignment on analytical Chemistry.
5. They will install a new computer centre in the University.

XII. Put general questions to the following sentences.

Example: The students of Pharmacy study English at the University.
- Do the students of Pharmacy study English at the University?

1. Victor and Mike study Pharmacognosy at the University every afternoon.
2. Some of the University professors teach their classes on line.
3. Many students were paying attention to the news about the foundation of the scientific society on Organic Chemistry.
4. Diana is thinking about getting a new job with a big pharmaceutical company.
5. The patient has just taken an aspirin.

XIII. Put special questions to the following sentences.

Example: The students of Pharmacy study English at the University.
- What subject do the students of Pharmacy study at the University?

1. This Professor has written 16 books.
2. She's read the book you gave her last month.
3. We moved into this flat two months ago.
4. Our group is listening to a lecture on Botany now.
5. Part-time students will be back for their next session in spring.

XIV. Put the following sentences in the negative form.

Example: The students of Pharmacy study English at the University.
- *The students of Pharmacy don't study French at the University.*

1. Part-time students of Pharmacy write four test-papers on English.
2. Students studied on Sundays last year.
3. Look! Ann has made a lot of mistakes in her test.
4. My friend is helping me with my homework now.

5. Tomorrow we will be going home at this time.

XV. Reorder the sentences as in the example.

Example: gardening/ he /collapsed /when /he/ was

- *He collapsed when he was gardening.*

1. nurse / assessed / the / his / injury/ he/ hospital/ arrived/ to
2. was / she/ street /her/ when/ hit /crossing /a /the /car/
3. he/ was/ operation/ lot / a/ in /the/ before/ pain / of
4. he /diagnosis/ a/ careful/ made/ the /after/ examination
5. house/ phone/ the/ was/ when/ the/ rang/ I/ leaving

XVI. Render the article in the written form. Use the following phrases:

The article centers about (deals with; devotes considerable attention to; is oriented forward to; It is of importance to note; First (secondly, thirdly; Finally; Above all; Thus (therefore); Furthermore ; Therefore; However; This chapter / abstract has examined macroeconomics datar; The abstract develops the earlier view on the problem of; The work surveyed in this article gives good grounds for believing that; Lastly I'd like to say that; It may be important to conclude

Illegal drugs

Drugs are any chemical substances that effect a physical, mental, emotional, or behavioral change in an individual. Drug abuse is the use of any licit or illicit chemical substance that results in physical, mental, emotional, or behavioral impairment in an individual. Illegal drugs are drugs whose possession and use is forbidden by law due to their harmfulness and, usually, lack of therapeutic use. The most common illegal drugs are: cannabis, cocaine, hallucinogens, opium, heroin, depressants, stimulants, etc.

In many countries, drug smuggling carries a severe penalty, including the death penalty. In 2011, two people were sentenced to death in Malaysia for trafficking 1 kilogram of cannabis into the country. On March 30, 2012, three Filipinos were executed by the Chinese government for drug trafficking.

In the USA, Federal law states that first time offenders be sentenced to a minimum term of imprisonment averaging 1 to 3 years.

Drug trafficking is widely regarded as the most serious of drug offences around the world.

Контрольна робота
II семестр 1 курс

I. Read the text. Translate it into Ukrainian (in written).

Chemical Bonds

Atoms of most elements possess the property of binding to other atoms. When two or more atoms are bound together, the force of attraction that holds them together is called a chemical bond. Atoms of particular elements may form a certain precise and limited number of bonds, others may form many. When atom reacts, they gain, lose or share electrons. Metallic elements frequently combine with nonmetal lie elements to form compounds. There are two types of bonding: ionic and covalent.

Ionic bonds are characteristic of sodium compounds. Sodium can gain a complete outer shell and it may acquire 7 electrons from other atoms. So, sodium can have an enormous excess of a negative charge. There is an electrostatic force of attraction between oppositely charged ions of sodium compounds, called ionic or electrovalent bond.

There is an alternative way of bondage combination of two nonmetal lie elements, both gaining electrons. They combine by sharing electrons. A shared pair of electrons is a covalent bond. If two pairs of electrons are shared, the bond is a double bond (hydrogen + oxygen = water).

There are three types of covalent substances: substances composed of small individual molecules with weak forces of attraction (gases); small molecules with weak forces of attraction (ethanol) and giant molecules (quartz).

Atoms are bonded together strongly enough to be regarded as a single entity. This aggravation is called a molecule.

Some elements (pure substances that cannot be split up) consist of small individual molecules with negligible forces of attraction between them (oxygen).

II. Fill in the gaps using words and phrases from the text.

1. Atoms of most elements … the property of binding to other atoms.
2. Sodium can gain a complete … and it may acquire 7 electrons from other atoms.
3. A shared pair of … is a covalent bond.
4. Atoms are bonded together strongly enough to be regarded as a … entity.
5. This … is called a molecule.

III. Fill in prepositions where necessary.

1. Atoms … most elements possess the property … binding to other atoms.
2. Atoms … particular elements may form a certain precise and limited number … bonds, others may form many.
3. Metallic elements frequently combine … nonmetal lie elements … form compounds.
4. There is an electrostatic force … attraction … oppositely charged ions … sodium compounds, called ionic or electrovalent bond.
5. Some elements consist … small individual molecules … negligible forces … attraction … them.

IV. Correct the wrong statements.

1. Elements are made of molecules.
2. All the matter is made of atoms.
3. Elements combine in different proportions to form atoms.
4. Atoms of all elements have the same masses.
5. Chemical reactions take place between similar atoms.

V. Give as much information as you can about "Chemical Analysis" (10-15 sentences) – in written.

VI. Fill in the gaps with the form of the article where necessary.

1. … Atoms of particular elements may form … certain precise number of bonds, others may form many.
2. When … atom reacts, they gain, lose or share molecules.
3. Ionic bonds are …characteristic of metal compounds.
4. … Sodium can gain … complete outer shell and it may acquire 7 electrons from other atoms.
5. There is … chemical force of attraction between oppositely charged ions of sodium compounds, called … ionic or electrovalent bond.

VII. Fill in the gaps with the form of the pronoun where necessary.

1. The whole evening students talked about … exams.
2. This is my book. The book is ... .
3. Ann distilled water by … .
4. I have got a little money. I can buy … bread.
5. Don't hesitate to ask Ms Brown if you need .... help.

VIII. Complete the table with the correct form of the adjective:

Positive Degree	Comparative Degree	Superlative Degree
Good	*better*	*The best*
Far		
Bad		
Much/many		
stable		
Clear		
Nervous		
Careful		
Dangerous		

IX. Write the readings in words:

Example: 479 –three hundred and seventy five

1. 407 –
2. 23^{rd} –
3. 2012 (year) –
4. 6.65 –
5. 1/4 –

X. Underline the correct form of the verb.

1. People *gathered / were gathering* wild plants for the treatment of different disease.

2. Listen! The Prof Smith *explains / is explaining* a new approach to classification.

3. Nowadays the holistic medicine *becomes / is becoming* extremely popular in many countries.

4. The course of instruction leading to a degree in pharmacy *was/ were* extended from four to five years in 1960.

5. Life *is/ will be* better fifty years from now.

XI. Rewrite the following sentences in the Passive Voice.

Example: The girls have prepared this delicious cake (cake).

– The delicious cake has been prepared by the girls.

1. People use herbs to flavor their food. (food)
2. The nurse cleaned the wound. (wound)
3. The doctor is now treating the patient for heart attack.(patient)
4. The holistic movement is advocating the return to the natural laws of healing.(natural laws)
5. Plant pathology controls the growing conditions of plants.(growing conditions of plants)

XII. Put general questions to the following sentences.

Example: The students of Pharmacy study English at the University.

- Do the students of Pharmacy study English at the University?

1. Ecology is concerned with the way plants and animals affect each other.
2. Senior students are preparing for their final exam these days.
3. He will have finished his experiment by nine o 'clock tomorrow.
4. He is going to study at an accredited Pharmaceutical school in Europe.
5. They will render the text about pharmaceutical education in Great Britain in this lesson.

XII. Put special questions to the following sentences.

Example: The students of Pharmacy study English at the University.

- What subject do the students of Pharmacy study at the University?

1. He has been a teacher since 1990.
2. She had washed all laboratory glassware by five o 'clock in the afternoon yesterday.
3. By the end of this month he will have been working at the same drugstore for twenty years.
4. The first college of pharmacy was founded in the United States in 1821.
5. Plants form the system, in which energy is transferred from one organism to another in the form of food.

XIV. Put the following sentences in the negative form.

Example: The students of Pharmacy study English at the University.

- *The students of Pharmacy don't study French at the University.*

1. Certain genes can move around within the chromosome of cells.
2. They will be eating junk food before the operation.
3. Carbon compounds form less than 25 per cent of all known compounds.
4. After taking the sleeping pills the child was still sleeping when I came.
5. The microscope has broken down.

XV. Reorder the sentences as in the example.

Example: gardening/ he /collapsed /when /he/ was

- *He collapsed when he was gardening.*

1. dentist/ if/ the/ you/ to/ have/ go/ toothache/ a

2. healthy/ if/ and/ / fit/ will/ does/ be / exercises / of/ lots/ Peter / he

3. if/ doesn't/ go/ rain/ will/ we/ it/ beach/ go/ the/to

4. sweets/ you/ many/ damage/ too/ eat/ when/ teeth/ your

5. it/ I/ for/ fail/ prepare/ will/ don't/ exam/ the/ if/ I

XVI. Render the article in the written form. Use the following phrases:

The article centers about (deals with; devotes considerable attention to; is oriented forward to; It is of importance to note; First (secondly, thirdly; Finally; Above all; Thus (therefore); Furthermore; Therefore; However; This chapter / abstract has examined macroeconomics data; The abstract develops the earlier view on the problem of; The work surveyed in this article gives good grounds for believing that; Lastly I'd like to say that; It may be important to conclude

Atoms

All matter is composed of certain fundamental units called atoms. These atoms are very small, about 0.000000004 inches in diameter.

The nucleus of the atom is composed of two particles called pro-tons and neutrons. At a relatively great distance from the nucleus there are smaller particles called electrons, which move around the nucleus.

Electrons differ from each other in the amount of energy that they have. The electrons which are near the nucleus have a high energy; the ones farther away have low energy. Electrons orbit the nucleus in special regions called shells.

Substances made up of identical atoms are called elements. So far 105 different elements have been discovered, each of which differs from the other in the number of protons contained in the nucleus. The number of protons contained in the nucleus of a particular element is known as its atomic number. The number of electrons orbiting around the nucleus is equal to the number of protons in the nucleus.

Because protons and neutrons have identical weights and electrons are approximately 2000 times lighter, most of the weight of an atom is contained in its nucleus. The sum of the number of protons and the number of neutrons in an atom of a particular element is known as atomic weight.

The elements are arranged in the order of increasing atomic num-ber in the Periodical Table. Each element is represented by a symbol consisting of one or two letters. For instance the first element, hydro-gen, represented by the symbol H, has an atomic number of 1 and an atomic weight of 1. Calcium, on the other hand, represented by the symbol Ca has an atomic number of 20 and an atom weight of 40. This means that a calcium atom weighs 40 times as much as a hydro-gen atom. The Periodic Table is also arranged in such a way that ele-ments with similar properties are grouped under each other.

Контрольная робота

III семестр 2 курс

I. Read the text. Translate it into Ukrainian (in written).

Antihypertensive Drugs

Antihypertensive drugs reduce blood pressure when it reaches unsafe values. The critical values that indicate when treatment is necessary may have some adjustments but treatment is definitely indicated when:

-systolic blood pressure is 200 mm Hg or above;

-diastolic blood pressure is 110 mm Hg or above.

The treatment for hypertension is always a long process, usually for the rest of the patient's life. If possible, treatment with antihypertensive drugs should be withheld until the abnormally high values have been confirmed on three separate occasions.

If hypertension or its effect on other existing clinical conditions becomes life threatening, treatment must be immediate. Successful treatment should bring the blood pressure below:

-systolic 160 mm Hg;

-diastolic 90 mm Hg.

Drugs that may be used to assist the blood pressure treatment include:

-diuretics;

-beta-adrenoceptor blocking drugs;

-calcium-channel blocking drugs.

II. Fill in the gaps using words and phrases from the text.

1. Antihypertensive drugs reduce … when it reaches… .
2. The treatment for … is always a long process.
3. If hypertension becomes life threatening, … must be immediate.
4. … treatment should bring the blood pressure below: systolic 160 mm Hg; diastolic 90 mm Hg.
5. …and … may be used to assist the blood pressure.

III. Fill in prepositions where necessary.

1. The treatment … hypertension is always a long process.
2. Treatment … antihypertensive drugs should be withheld until the high blood pressure becomes normal.
3. If hypertension or its effect … other existing clinical conditions becomes life threatening, treatment must be immediate.
4. Drugs that may be used … assist the blood pressure treatment include: diuretics; beta-adrenoceptor blocking drugs; calcium-channel blocking drugs.
5. The treatment for hypertension is usually treated for the rest … the patient's life.

IV. Correct the wrong statements.

1. Antihypertensive drugs increase blood pressure.
2. The treatment for hypertension is always a short process.
3. Diuretics are used to treat the low blood pressure.
4. Treatment must be immediate if hypertension becomes life favorable.

5. Unlucky treatment should bring the blood pressure below: systolic 160 mm Hg; diastolic 90 mm Hg.

V. Give as much information as you can about antihypertensive drugs (10-15 sentences) - in written.

VI. Fill in the gaps with the form of the article where necessary.

1. …Antihypertensive drugs reduce blood pressure.
2. … treatment for hypertension is always … long process.
3. Calcium-channel blocking drugs may be used to decrease … blood pressure.
4. … starches represent … large class of foods.
5. … alchemists believed that metals could be converted into gold with … aid of a mystical thing called ... philosopher's stone.

VII. Fill in the gaps with the form of the pronoun where necessary.

1. The parasites obtain … food from other plants.
2. Fungi cannot make… own food.
3. Glidant is added to the tablet material to improve …. flow property.
4. Penicillin was the first antibiotic to be produced and … still assumes the position of major importance in this field.
5. Some people take amphetamines to increase … energy.

VIII. Complete the table with the correct form of the adjective.

Positive Degree	Comparative Degree	Superlative Degree
Bad	*worse*	*The worst*
Good		
Little		
Much/many		
Big		
Comfortable		
Different		
Short		
Lazy		

IX. Write the readings in words.

Example: 325 – three hundred and twenty five

1. 205 -
2. 15^{th} -
3. 2010 (year) -
4. 1.35 –
5. 1/4 -

X. Underline the correct form.

1. Smallpox usually *disfigures/ is disfiguring* the face.
2. Whooping cough *occurs/is occurring* mainly in young children.
3. They *are diluting/ dilute* the drug, reducing its effectiveness now.
4. Most students *choose/ are choosing* one particular area for research.
5. Doctors *prescribe/ are prescribing* antiviral drugs to treat certain diseases.

XI. Fill in the gaps with the right form of the verb.

1. I *studied/have studied* at the medical faculty last year.

2. It *was not / have not been* a problem for me to get up early, especially in winter in my childhood .
3. I *have just taken/took* a letter from my close friend.
4. We *didn't study /haven't studied* on Saturdays and Sundays last term.
5. I *haven't done/didn't do* my report in Chemistry yet.

XII. Rewrite the following sentences in the Passive Voice.

Example: The girl has prepared the report in Pharmacy (report).
– The report in Pharmacy has been prepared by the girl.

1. Edward Jenner developed a vaccine against smallpox.
2. Doctors prescribe antiviral drugs to treat certain diseases caused by bacteria.
3. Vaccines, antiserums and globulins treat infectious diseases.
4. The doctor attached a tiny monitor to the baby's head.
5. Peter found the potato peeler in a drawer full of utensils.

XIII. Put general questions to the following sentences.

Example: The students of Pharmacy studied English at the University.
- Did the students of Pharmacy study English at the University?

1. The virus named HIV-1 occurs mainly in Africa.
2. I studied at the medical faculty last term.
3. People are growing herbs in their gardens at present.
4. Today he has got an excellent mark in Biology.
5. We were preparing dinner all day long.

XIV. Put special questions to the following sentences.

Example: The student of Pharmacy study Chemistry at the University.
- What subject does the student of Pharmacy study at the University?

1. Plants vary greatly in size and form.
2. The oxygen in the air we breathe has come from plants.
3. The starches represent a large class of foods.
4. The period of black magic extended from prehistoric times to about the beginning of the Christian Era
5. They were making a test in Mathematics from 5 till 6 yesterday.

XV. Put the following sentences in the negative form.

Example: The student of Pharmacy study Chemistry at the University..
- The student of Pharmacy doesn't study Chemistry at the University.

1. I have just translated the article in medicine.
2. Last year my friend got a great job.
3. We were answering the questions all English lesson.
4. They pass exams and credit tests every period of study.
5. My close friend has already recovered.

XVI. Reorder the words to write if and when sentences as in the example.

Example: If you ... (not/go) to bed, you will be tired in the morning.
- If you ... don't go to bed, you will be tired in the morning.

1. If you ... (*have*) toothache, ... (*go*) to the dentist.
2. If Peter ... (*do*) lots of exercise, he ... (*be*) fit and healthy.
3. If it ... (*not rain*), we ... (*go*) to the beach.
4. You ... (*damage*) your teeth if you ... (*eat*) too many sweets.

5. I ... (*fail*) the exam if I ... (*not prepare*) for it.

XVII. Render the article in the written form. ***Use the following phrases:***
The article centers about (deals with; devotes considerable attention to; is oriented forward to; It is of importance to note; First (secondly, thirdly; Finally; Above all; Thus (therefore); Furthermore ; Therefore; However; This chapter / abstract has examined data; The abstract develops the earlier view on the problem of; The work surveyed in this article gives good grounds for believing that; Lastly I'd like to say that; It may be important to conclude

Digitoxin, Digoxin

Cardiac glycosides:

- increase the force of myocardial contraction;
- stabilize atrial and ventricular fibrillation.

Digitoxin is a long-acting form of digoxin. Cardiac glycosides work by creating electrolyte imbalance in the myocardium; both intracellular and extracellular monitoring serum electrolyte balance will be necessary. Abnormal potassium values will initiate cardiac dysrhythmias.

It is also essential that serum digoxin values are monitored. The patient will experience unpleasant side-effects if serum values rise above therapeutic levels. These can include gastric upsets, visual disturbances, neurological disturbances and gynaecomastia in both sexes.

Excessive digoxin therapy will cause cardiac dysrhythmias and heart block. For this reason, before giving every dose of digoxin, the nurse should check the rate and rhythm of the patient's pulse for one full minute. Digoxin should not be given if the adult pulse is below 60 beats per minute.

The drug should be stopped immediately if signs of digitalis toxicity occur. If they are life-threatening, digoxin-specific antibody "Di-gibind" can be given intravenously to increase the rate of digoxin removal from the body.

Individual absorption rates of digoxin will vary. It is for this reason that measuring serum digoxin values is important.

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