

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

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ENGLISH FOR PHARMACISTS

**НАВЧАЛЬНО-МЕТОДИЧНИЙ ПОСІБНИК
для практичних занять та самостійної роботи
студентів другого (магістерського) рівня вищої
освіти спеціальності 226 «Фармація, промислова
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Череповська Т. В. English for Pharmacists: навчально-методичний посібник для студентів другого (магістерського) рівня вищої освіти спеціальності 226 «Фармація, промислова фармація». Львів, 2022. 73 с.

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Навчально-методичний посібник розглянуто та схвалено на засіданні кафедри української та іноземних мов імені Якіма Яреми: протокол № _____ від _____.

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Topic 1. MY FUTURE PROFESSION IS A PHARMACIST



A **pharmacist**, also known as a chemist, is a health professional who specializes in the right way **to compound**, use, store, preserve, and provide medications. The pharmacist provides pharmaceutical care to patients, aiming to achieve proper and safe use of medicines, as well as basic primary health care services. Using knowledge of the mechanism of action of **drugs**, the pharmacist understands how they should be used to achieve maximum benefit, minimal **side effects** and to avoid drug interactions. Pharmacists undergo university education to understand the biochemical mechanisms and actions of drugs, drug uses, therapeutic roles, side effects, potential drug interactions, and monitoring parameters. This is related to chemistry, anatomy, physiology, and pathophysiology. Pharmacists **interpret** and communicate this

specialized knowledge to patients, **physicians**, and other health care providers.

Among other licensing requirements, different countries require pharmacists to hold either a Bachelor of Pharmacy, Master of Pharmacy, or Doctor of Pharmacy degree.

The most common pharmacist **positions** are that of a community pharmacist (also referred to as a retail pharmacist, first-line pharmacist or dispensing chemist), or a hospital pharmacist, where they *instruct* and *counsel on* the proper use and adverse effects of medically prescribed drugs and medicines. Pharmacists may also practice in a variety of other **settings**, including **industry**, wholesaling, research, academia, formulary management, military, and government.

Historically, the fundamental role of pharmacists as a healthcare practitioner was to check and distribute drugs to doctors for medication that had been prescribed to patients. In more modern times, pharmacists advise patients and health care providers on the **selection**, dosages, interactions, and side effects of medications, and act as a learned intermediary between a prescriber and a patient. Pharmacists monitor the health and progress of patients to ensure the safe and effective use of medication. Pharmacists may practice compounding; however, many medicines are now

produced by pharmaceutical companies in a standard dosage and drug delivery form.

One of the most important roles that pharmacists are currently taking on is one of pharmaceutical care. Pharmaceutical care **involves** taking direct responsibility for patients and their disease states, medications, and management of each to improve **outcomes**. Pharmacists are often the first point-of-contact for patients with health inquiries. Thus, pharmacists have a **significant role** in **assessing** medication management in patients, and in **referring** patients to physicians.

(Adapted from <https://en.wikipedia.org/wiki/Pharmacist>)

Essential Vocabulary

A pharmacist	Фармацевт
A chemist	Фармацевт; хімік
To compound	Змішувати
To store	Зберігати
To provide medications	Забезпечувати ліками
Proper and safe use of medicines	Належне та безпечне використання лікарських засобів

Action of drugs	Дія ліків
To achieve benefit	Досягти користі
Side effects	Побічні дії
To avoid drug interactions	Уникнути взаємодії ліків
Retail pharmacist	Фармацевт, який працює в аптеці
Hospital pharmacist	Фармацевт, який працює в лікарні
To counsel on the proper use of medicines	Давати поради стосовно безпечного використання ліків
To prescribe medicines	Призначати ліки
Wholesaling	Гуртова торгівля
Intermediary	Посередник
Dosage form	Лікарська форма
To ensure the safe and effective use of medications	Забезпечити безпечне та ефективне використання ліків
To improve outcome	Покращити результат
Health inquiries	Питання щодо здоров'я
To assess	Оцінити
To refer	Скерувати

TASK 1. Answer the questions:

1. What does a pharmacist specialize in?
2. What does a pharmacist provide?
3. Why is it important for a specialist to understand the mechanisms of drug action?
4. What subjects is pharmacy related to?
5. Whom do pharmacists share their knowledge with?
6. What pharmacy degrees do you know? Which one are you going to achieve?
7. What positions can pharmacists occupy?
8. What does a hospital pharmacist do?
9. In what spheres can a pharmacist work?
10. Do you agree that a pharmacist is an intermediary between a doctor and a patient? Justify your answer.

TASK 2. Read the following words and find their synonyms in the text:

A chemist	
Medicines	
Adverse effects	
To mix	
Results	
Choice	

Doctors	
Jobs	
Important (role)	
Explain	
Spheres	
Manufacture	

TASK 3. Read the following synonymic expressions and try to substitute them in the sentences:

To use medications – to apply medications;

To undergo university education – to study at the university;

To be related to – to be connected with;

To instruct – to teach;

To involve – to include;

To assess – to estimate;

To refer – to send;

To counsel on – to advise on

1. The pharmacist warned me against using medications without a doctor's prescription.
2. He underwent university education before finding such a good job.
3. Many subjects are related to pharmacy.
4. My chemistry teacher instructed me how to compound substances properly.

5. The curriculum involves a lot of specialized courses.
6. The doctor assessed all the risks and prescribed an antibiotic.
7. A pharmacist refused to sell me a medicine without a prescription and referred me to the doctor.
8. A pharmacist mustn't counsel customers on the use of antibiotics.

TASK 4. What are your plans for the future? Are you going to work in pharmacy? What jobs are you interested in?

Topic 2. THE IMPORTANCE OF CHEMISTRY IN PHARMACEUTICAL INDUSTRY



Chemistry is the science of the composition, structure, properties and reactions of matter, especially of atomic and molecular systems. Life itself is full of chemistry; i.e., life is the reflection of a series of continuous biochemical processes.

All living organisms are composed of numerous organic substances. Evolution of life begins from one single organic compound called a nucleotide. Nucleotides join together to form the building blocks of life. Our identities, heredities and continuation of generations are all governed by chemistry.

In our everyday life, whatever we see, use or consume is the gift of research in chemistry for thousands of years. It has played a major role in pharmaceutical advances too as diseases and their remedies have also been a part of human lives. Chemistry plays an important role in understanding diseases and their remedies, i.e. drugs. Medicines or drugs that we take for the treatment of various ailments are chemicals, either organic or inorganic. However, most drugs are organic molecules.

Everywhere, from discovery to development, from production and storage to administration, and from desired actions to adverse effects of drugs, chemistry is involved directly. In the drug discovery stage, suitable sources are explored. Sources of drug molecules can be natural or semi-synthetic. Whatever the source is, chemistry is involved in all processes in the discovery phase. For example, if a drug molecule has to be purified from a natural source, e.g. a plant, processes such as extraction, isolation and identification are

used, and all these processes involve chemistry. Similarly, in the drug development steps, especially in the pre-formulation and formulation studies, the structures and the physical properties, e.g. solubility and pH, of the drug molecules are exploited.

Chemistry, particularly physical properties of drugs, is also important to determine storage conditions. Drugs having an ester functionality, e.g. aspirin, could be quite unstable in the presence of moisture, and should be kept in a dry and cool place.

The chemistry of drug molecules dictates the choice of the appropriate route of administration. When administered, the action of a drug inside our body depends on its binding to the appropriate receptor, and its subsequent metabolic processes, all of which involve complex enzyme-driven biochemical reactions.

All drugs are chemicals, and pharmacy is a subject that deals with the study of various aspects of drugs. Therefore, it is needless to say that to become a good pharmacist the knowledge of the chemistry of drugs is essential.

(<https://pharmareview.files.wordpress.com/2011/10/chemistry-for-pharmacy-students-general-organic-and-natural-product-chemistry.pdf>)

Essential Vocabulary

Properties	Властивості
Matter	Речовина
Reflection	Відображення
Continuous processes	Тривалі процеси
Numerous organic substances	Численні органічні сполуки
A compound	Сполука
Heredity	Спадковість
Pharmaceutical advances	Фармацевтичні досягнення, прогрес
Remedies	Ліки
Ailments	Хвороби
Discovery stage	Стадія відкриття
Suitable sources	Належні джерела
To purify	Очищувати
Solubility	Розчинність
To determine storage conditions	Визначати умови зберігання
Unstable in the presence of moisture	Нестійкий в присутності вологи
Subsequent metabolic processes	Подальші метаболічні процеси

TASK 1. Answer the questions:

1. What does chemistry as a science deal with?
2. What are all living things composed of?
3. Why is our life governed by chemistry? Justify the statement.
4. Did chemistry play a vital role in treating diseases?
5. Are there more organic or inorganic medicines?
6. Is chemistry involved in all the stages of medicine production?
7. In what way is chemistry involved at the discovery stage?
8. What is important to explore at the drug development stage?
9. Is it important to know physical properties of drugs for proper storage? Justify your answer.
10. Does chemistry help to find out the right way to administer drugs? If so, in what way?

TASK 2. Open the brackets in the following sentences:

1. Chemistry (to deal with) the composition, structure, properties and reactions of matter.
2. Metabolic processes (to involve) complex enzyme-driven biochemical reactions.

3. The structures and the physical properties, e.g. solubility and pH, of the drug molecules (to be exploited).
4. Life (to be) the reflection of a series of continuous biochemical processes.
5. All living organisms (to be composed) of numerous organic substances.
6. Chemistry (to be involved) in all processes in the discovery phase.
7. Chemistry (to play) a major role in pharmaceutical advances for many centuries.
8. Remedies (to be) a part of human lives since prehistoric times.

TASK 3. Fill in an appropriate modal verb (shouldn't, could, must, can, should, to have, mustn't)

1. Some medicines ... be kept in a dry and cool place
2. A drug molecule ... to be purified from a natural source
3. Sources of drug molecules ... be natural or semi-synthetic.
4. Physical properties of drugs ... be explored to determine storage conditions.
5. Aspirin ... be quite unstable in the presence of moisture.

6. Antibiotics ... be used without prescription.

7. Some medicines ... be taken before meal.

TASK 4. Put the words in the correct order:

1. drugs / molecules. Most / are / organic

2. their / understanding / plays / important / in / and / remedies. / Chemistry / an / role / diseases

3. called / organic / begins / of / from / one / single / a / nucleotide. / Evolution / life / compound

Topic 3. CLASSES OF NUTRIENTS: FATS

Fat is one of three main classes of nutrients that provide energy to the body. The others are carbohydrates and proteins. Fats are found in animals and plants. They are composed of carbon, hydrogen, and oxygen.

An animal fat that is liquid at room temperature is called an oil. Fats and oils are insoluble in water, but they can be dissolved in alcohols, chloroform, ether, and gasoline. Beef tallow and some other fats are hard at room temperature. Such fats as butter, lard, and margarine, are soft at room temperature.

Fat has many important uses. It is a source of energy for animals and plants. Fat is stored under the surface of the skin of many kinds of animals, including human beings. These fat deposits act as insulation against heat loss. Deposits of fat

around the eyeballs and other organs of animals serve as cushions against injury.

Fat is an important energy source in the diet and is a more efficient fuel than carbohydrates or proteins. It can produce nine calories of energy per gram. Fat is the body's most efficient form of stored fuel. The body can store fat that is almost dry, but large amounts of water are necessary to store carbohydrates and proteins. The body converts carbohydrates and proteins into fatty tissue for storage. When extra fuel is needed, the body draws on this stored fat.

Fats are composed of substances called fatty acids, and an alcohol called glycerol. Certain fatty acids, known as essential fatty acids, are necessary for the growth and maintenance of the body. The body cannot manufacture essential fatty acids, and so they must be included in the diet.

Essential Vocabulary

Fat	Жир
Carbohydrate	Вуглевод
Protein	Білок
Nutrient	Поживна речовина
Provide	Забезпечувати
To be composed of	Складатися з

Carbon	Вуглець
Liquid	Рідина
Insoluble	Нерозчинний
To dissolve	Розчиняти
Ether	Ефір
Gasoline	Керосин
Beef tallow	Яловичий жир
Lard	Смалець
Source of energy	Джерело енергії
Efficient fuel	Дієве паливо
To convert	Перетворювати
Fatty tissue	Жирова тканина
Fatty acid	Жирна кислота
To manufacture	Виготовляти

TASK 1. Say if the statements are right or wrong.

Correct them if they are wrong:

1. Fat is one of the four main classes of nutrients that provide energy for the body.

2. Fats and oils are insoluble in alcohols, chloroform, ether, and gasoline.

3. Beef tallow and some other fats are soft at room temperature.

4. Fat is a source of energy for animals and plants.
5. Protein is the body's most efficient form of stored fuel.
6. Fatty acids are necessary for the growth and maintenance of the body.

TASK 2. Circle the correct item:

1. Fat is one of _____ main classes of nutrients that provide energy for the body.

- a) three b) four c) five

2. Fats and oils are insoluble in _____

- a) alcohols b) gasoline c) water

3. _____ and some other fats are hard at room temperature.

- a) beef tallow b) margarine c) butter

4. Fat can produce _____ calories of energy per gram.

- a) three b) six c) nine

5. Large amounts of water are necessary to store _____ and proteins.

- a) fat b) carbohydrates c) plants

6. Certain fatty acids are necessary for the growth and maintenance of the _____.

- a) body b) skin c) organs

TASK 3. Use the synonyms from the text instead of underlined words:

1. Fat is one of three major classes of nutrients.
2. Fat has many important benefits.
3. Fat is stored under the surface of the skin of many types of animals.
4. Deposits of fat serve as cushions against damage.
5. Fat is the body's most productive form of stored fuel.
6. Large amounts of water are required to store carbohydrates and proteins.
7. The body cannot produce essential fatty acids.

TASK 4. Match the two parts of the sentence:

Fats are found in	under the surface of the skin of many kinds of animals, including people.
Such fats as butter, lard and margarine	substances called fatty acids, and an alcohol called glycerol.
Fat is stored	carbohydrates and proteins into fatty tissue for storage.
The body converts	animals and plants.
Fats are composed of	are necessary for the growth and maintenance of

	the body.
Certain fatty acids	are soft at room temperature.

TASK 5. Fill in the blanks with the correct comparative and superlative forms:

Positive	Comparative	Superlative
Soft		
Large		
Important		
Many		
Efficient		
Dry		

TASK 6. Write the negative and interrogative forms of the following sentences:

1. Fat is one of three main classes of nutrients.
2. Fats and oils can be dissolved in alcohols.
3. Deposits of fat serve as cushions against injury.
4. Fat can produce nine calories of energy per gram.
5. The body converts carbohydrates and proteins into fatty tissue.
6. Certain fatty acids are necessary for the growth and maintenance of the body.
7. Essential fatty acids must be included in the diet.

TASK 7. Match the words and definitions:

a) proteins, fats, carbohydrates	1) three main classes of nutrients
b) alcohols, chloroform, ether and gasoline	2) composition of fats
c) beef tallow	3) an animal fat that is liquid at room temperature
d) fatty tissue	4) fats can be dissolved in these substances
e) an oil	5) fat, that is hard at room temperature
f) essential fatty acids	6) fat, that is soft at room temperature
g) carbon, hydrogen and oxygen, fatty acids, alcohol and glycerol	7) the body converts carbohydrates and proteins into...
h) lard	8) fatty acids, necessary for the growth of the body

TASK 8. Answer the questions:

1. Essential fatty acids are necessary for the growth of the body, aren't they?
2. Are fats and oils insoluble in water?
3. Where are fats found?

4. What class of nutrients is the most efficient fuel: fats, carbohydrates or proteins?

Topic 4. PROTEINS

Protein is one of the three main classes of food that provide energy to the body. The others are carbohydrates and fats. Proteins exist in all living matter, in every cell. They are essential to plant and animal life. Proteins are present in all fluids of the body, except urine and bile. They are essential parts of protoplasm of the body cells. Proteins are the chief components of the active tissues. Muscle tissues are made up almost entirely of proteins and contain only small amounts of fats and carbohydrates. Plants build proteins from minerals in the air and the soil. Human beings and animals obtain protein from foods. Foods high in protein include cheese, eggs, fish, meat, and milk. These products provide the largest part of the nutrient. Man also gets protein from such vegetables as beans, peas, nuts, and grains.

The word “protein” is derived from the Greek word meaning “to take first place” as the protein group ranks first among the organic compounds. It is evident that both animal and plant lives are impossible without protein. The lack of it lowers the body’s resistance to disease. As proteins differ in

composition, we must use a varied diet to get the different kinds of protein necessary for the muscles, skin, hair, nails, blood, and tissues.

All proteins contain carbon, hydrogen, nitrogen, and oxygen. Some proteins also have iron, phosphorus, and sulphur. The proteins differ in composition from carbohydrates and fats in that they contain the element nitrogen. Proteins are large, complex molecules made up of smaller units called amino acids. The amino acids are linked together into long chains called polypeptides. A protein consists of one or more polypeptide chains.

Twenty common amino acids are combined into the thousands of different proteins required by the human body. Nine of them, called essential amino acids, cannot be produced by the body. Therefore, they must be supplied by various foods. The remaining amino acids, called non-essential amino acids, can be made by the body in sufficient amounts.

The best source of proteins is cheese, eggs, fish, meat, and milk. The proteins in these foods are called complete proteins because they contain adequate amounts of all the essential amino acids. Cereal grains, legumes, nuts, and vegetables also supply proteins. These proteins are called

incomplete proteins because they lack adequate amounts of one or more of the essential amino acids.

Insufficient protein in the diet may cause lack of energy, stunted growth, and lowered resistance to disease.

Essential Vocabulary

To exist	Існувати
Living matter	Жива речовина
Fluid	Рідина
Urine	Сеча
Bile	Жовч
Amount	Кількість
Soil	Ґрунт
Obtain	Одержувати
To be derived from	Походити
Evident	Очевидний
Resistance to disease	Резистентність до захворювання
To require	Потребувати
Various	Різноманітний
Sufficient	Достатній
Legumes	Бобові

TASK 1. Correct the sentences:

1. Human beings and animals obtain protein from water.
2. Foods high in protein include sweets and fruit.
3. Proteins are made up of bigger units called amino acids.
4. Nine common amino acids are combined into the thousands of different proteins.
5. Essential amino acids can be made by the body in sufficient amount.
6. Cereal grains, legumes, nuts, and vegetables don't supply proteins.

TASK 2. Fill in the missing word:

1. Proteins exist in every _____.
2. Human beings and animals _____ protein from foods.
3. A protein _____ of one or more polypeptide chains.
4. Twenty common amino acids are combined into the thousands of different proteins required by the _____ body.
5. Essential amino acids must be supplied by _____ foods.
6. The proteins in cheese, eggs, fish, meat, and milk are called _____ proteins.

7. Insufficient protein in the diet may cause _____ of energy.

TASK 3. Choose the right variant of an answer:

1. Proteins are essential/unimportant to plant and animal life.

2. Foods low/high in protein include cheese, eggs, fish, meat, and milk.

3. Proteins are tiny/large, complex molecules.

4. Twenty common amino acids are combined into the thousands of different/similar proteins.

5. The remaining amino acids can be made by the body in sufficient/inadequate amounts.

6. These proteins are called complete/incomplete proteins because they lack adequate amounts of one or more of the essential amino acids.

TASK 4. Fill in the prepositions:

1. Protein is one _____ the three main classes of food.

2. Proteins are essential _____ plant and animal life.

3. Human beings and animals obtain protein _____ foods.

4. Proteins are made _____ of smaller units called amino acids.

5. A protein consists _____ one or more polypeptide chains.

6. The proteins_____these foods are called complete proteins.

7. Insufficient protein in the diet may cause lack_____energy.

TASK 5. Add question tags to the following statements:

1. Proteins exist in every cell,_____?

2. Proteins are essential to plant and animal life,_____?

3. Some proteins contain iron, phosphorus, and sulphur,_____?

4. A protein consists of one or more polypeptide chains,_____?

5. Essential amino acids cannot be produced by the body,_____?

6. They must be supplied by various foods,_____?

7. Incomplete proteins lack adequate amounts of one or more of the essential amino acids,_____?

TASK 6. Translate into English:

1. Білки є необхідні для рослинного та тваринного життя.

2. Білки складаються із менших частин, які називаються амінокислотами.

3. Дев'ять із них не можуть бути вироблені організмом.

4. Вони містять достатню кількість амінокислот.

5. Недостатність білка в раціоні може привести до нестачі енергії.

TASK 7. Answer the questions:

1. Are proteins present in all fluids of the body?
2. Are they important constituents of the body cells?
3. What tissues are made up chiefly of proteins?
4. What is the origin of the word "protein"? Why is it called so?
5. In what products are proteins found?
6. What products is the main source of them?
7. Why is it important to use a varied diet?
8. In what way are proteins different from carbohydrates and fats?

TASK 8. Multiple choice. Fill in the blanks with the proper word:

1. Proteins exist in all ...
 - a) elements, b) living matter, c) fluids.
2. Proteins are chief components of the active ...
 - a) tissues, b) metals, c) bodies.

3. Man ... a part of his protein from such vegetables as beans, nuts and cereals.

a) derives, b) exists, c) contains.

4. Protein substances are...constituents of all living cells.

a) characteristic, b) essential, c) different.

Topic 5. CARBOHYDRATES

Carbohydrates are a term applied to a group of substances which includes sugars, starches, cellulose and many other related substances. This group of compounds plays a vitally important part in the lives of plants and animals, both as structural elements and in the maintenance of functional activity. All the carbohydrates contain the same elements: carbon, hydrogen, and oxygen. The carbohydrates as a group are comparable in importance with proteins and fats.

Cane and beet sugars, glucose, fructose, starch, and cellulose are typical representatives. The group of carbohydrates is very numerous. The properties of its representatives differ enormously from one substance to another. The sugars, such as glucose or sucrose, are easily soluble, sweet-tasting and crystalline. The starches are colloidal and paste-forming. Cellulose is completely insoluble. Yet chemical analysis shows that they have a common basis.

The starches and cellulose may be degraded by different methods to the same crystalline sugar, glucose. Among the undertakings dependant on carbohydrate materials are cotton industry, certain branches of explosives, brewing, and alcohol manufacture.

Essential Vocabulary

Starch	Крохмаль
Cellulose	Целюлоза
Related substances	Споріднені речовини
Vitally important	Життєво важливий
Maintenance	Підтримка
Functional activity	Функціональна активність
Comparable	Порівнюваний
Cane sugar	Тростинний цукор
Beet sugar	Буряковий цукор
Glucose	Глюкоза
Fructose	Фруктоза
Representative	Представник
To differ	Відрізнятися
Enormously	Значним чином
Sucrose	Цукроза

Sweet-tasting	Солодкий на смак
Crystalline	Кристалічний
Colloidal	Колоїдний
Paste-forming	Що може утворювати клейстер
Insoluble	Нерозчинний
To degrade	Розкласти
Undertaking	Галузь промисловості
Dependant on	Залежний від
Cotton	Бавовна
Explosive	Вибухівка
Brewing	Пивоваріння
Manufacture	Виробництво

TASK 1. Answer the following questions:

1. What is the term “carbohydrates” applied to?
2. What substances does this group include?
3. What role do the carbohydrates play in the lives of plants and animals?
4. Which are the typical representatives of carbohydrates?
5. Do the properties of carbohydrates differ from one substance to another?
6. What are the properties of sugars?

7. What does the chemical analysis of carbohydrates show?
8. Where are carbohydrate materials used?

TASK 2. Put the words in the correct order:

1. is / carbohydrate / sweet-tasting / Glucose / a / crystalline. / and
2. are / elements / essential / oxygen / of / all / hydrogen / the / and carbohydrates. / Carbon
3. colloidal / Starches / carbohydrates. / are
4. a / carbohydrates / the / common / All / have / basis.
5. nutrients. / and / are / proteins / types / carbohydrates / of / Fats

TASK 3. Translate the following sentences:

1. Фруктоза солодша за глюкозу.
2. Я ніколи не куштував тростинного цукру.
3. Крохмаль утворює клейстер.
4. Вуглеводи мають велике промислове значення.
5. Жири відрізняються від білків та вуглеводів.
6. Картопля та пшениця містять багато вуглеводів.

TASK 4. Grammar. Put the verbs in brackets into the Present Continuous Tense:

1. The professor (to explain) how to perform a chemical analysis.

2. The students (to listen) to him with great interest.
3. We (to taste) different kinds of sugars.
4. My friend (to present) his research paper on carbohydrates at this moment.
5. I am a student but in summer I (to work) at the cotton enterprise.
6. The researchers (to study) the properties of cellulose.
7. The lecturer (to prove) the importance of sugars in a diet.
8. The students (to try) to dissolve different carbohydrates.
9. At present our plant (to produce) cotton clothes.

TASK 5. Grammar: look at the table and learn 4 types of questions in English:

Types of questions (типи питань)	Definitions	Examples
General questions (загальні)	Питання, на які можна відповісти словами yes або no.	Are carbohydrates necessary for the growth?
Special questions (спеціальні)	Питання, що починаються	What products contain

	питальними словами what (що), who (хто), where (де), how many (скільки)	carbohydrates?
Alternative questions (альтернативні)	Запитання вибору. Складаються з двох частин, з'єднаних сполучником or.	Are carbohydrates or fats more effective fuel?
Disjunctive questions (розділові)	Питання- “перепитування” (Чи не так?)	Carbohydrates are numerous, aren't they?

TASK 6. Study the following examples and define the type of the question:

1. He is seldom late, isn't he?
2. Where are you going?
3. Can you help me?
4. Do you work or study?
5. Why are you smiling?
6. Are you tired?
7. This is a nice city, isn't it?
8. Is she going home or to the university?

TASK 7. Поставте питання до речень:

1. Carbohydrates and lipids are important constituents of protoplasm.
2. Muscle tissues are made up of proteins.
3. Proteins exist in all living matter.
4. The word “protein” is derived from the Greek word.
5. We must use a varied diet.
6. We can't live without proteins.
7. People get protein from vegetables, seeds and meat.
8. Protein contains sulfur, phosphorus and other elements.

Topic 6. SUGARS

The sugars are all soluble in water, have a sweet taste, form crystals, and also have other definite characteristics. Only two classes of simple sugars are important. These are: 1) the hexoses, or 6-carbon sugars, so-called because each molecule contains 6-carbon atoms, and 2) the pentoses, or 5-carbon sugars.

All of the hexoses have the general formula, $C_6H_{12}O_6$ but the molecules of the various hexoses differ in the arrangement and grouping of the atoms. Only three of the several hexoses are important, namely: glucose, fructose, and galactose.

Glucose is found in the free state, for example, in ripe fruits, sweet corn, and honey. It is especially important in animal nutrition, for it is the sugar in the blood. Glucose is only three fourths as sweet as cane sugar. Fructose occurs along with glucose in ripe fruits and honey. It is the sweetest of the sugars. Galactose does not occur free in nature except perhaps in traces in certain plants, but it forms a part of various compounds. The most important of these is milk sugar, or lactose, in which galactose is combined with glucose.

Essential Vocabulary

Soluble	Розчинний
Sweet	Солодкий
Taste	Смак
Definite	Певний
Characteristic	Ознака; властивість
Simple	Простий
Important	Важливий

So-called	Так званий
Hexose	Гексоза
Carbon	Вуглець
Various	Різний; різноманітний
To differ	Відрізнятися
Arrangement	Класифікація; розташування
Namely	А саме
Glucose	Глюкоза
Fructose	Фруктоза
Galactose	Галактоза
Free state	Вільний стан
Ripe	Зрілий
Honey	Мед
Nutrition	Харчування, їжа

Cane sugar	Тростинний цукор
To occur	Траплятися; зустрічатися
Except	За винятком; крім
Perhaps	Можливо

TASK 1. Answer the following questions:

1. Are the sugars soluble in water?
2. What classes of simple sugars are important?
3. Where is glucose found?
4. What are the most important hexoses?
5. Is glucose sweeter than fructose?

TASK 2. True or false:

1. Sugar has a bitter taste.
2. All of the hexoses have the general formula $C_6H_{12}O_6$.
3. Glucose can be found in ripe fruits, sweet corn and honey.
4. Glucose is only three-fourths as sweet as cane sugar.
5. Fructose occurs along with glucose in milk products.
6. Galactose occurs free in nature.

TASK 3. Match the words from the text with the definitions:

sugar, glucose, fructose, honey, lactose, nutrition.

1. A type of natural sugar in fruit juices and honey.
2. A sweet white or brown substance that is obtained from plants.
3. The process of giving or getting the right type of food for good health and growth.
4. A sweet sticky substance produced by bees.
5. A natural form of sugar that exists in fruit.
6. A type of sugar found in milk.

Task 4. Fill in the missing word:

1. The sugars are all in water, have a , form crystals, and also have other
2. Only three of the several hexoses are important, namely: , , and
3. Glucose is especially important in animal , for it is the sugar in the
4. occurs along with in ripe fruits and honey.
5. Galactose does not occur free in nature except perhaps in traces in certain , but it forms a part of various

Topic 7. VITAMINS.

FAT-SOLUBLE VITAMINS

Vitamin A. Vitamin A is important for good eye sight, especially at low light levels (i.e. at night) and is also important in maintaining the integrity of the mucosal cells which are the first defense against invading organisms. Thus, night blindness and susceptibility to infections are signs of a vitamin A deficiency.

Vitamin D. Many compounds possess vitamin D activity, but only vitamin D₂ (plant derived) and D₃ (animal derived) are important dietary sources. The primary function of vitamin D is to aid in the absorption of calcium and, to a lesser degree, phosphorus from the intestinal tract. It is also involved in mobilization of calcium from bones during times of low blood calcium. A vitamin D deficiency in growing children is referred to as rickets and in adults as osteomalacia (“soft bones”).

Vitamin E. The most potent form of several naturally-occurring forms of vitamin E is alpha-tocopherol. It is generally accepted that the major function of vitamin E is to serve as an antioxidant and free radical scavenger. Free radicals, which can be formed during fat metabolism in cells, can inhibit the part of the enzyme glutathione peroxidase,

which is an antioxidant inside cells. Thus, each one can partially offset a deficiency of the other, but they cannot fully take the place of each other. Vitamin E deficiency causes skin dryness, poor eyesight, muscle weakness, anemia and other problems.

Vitamin K. Vitamin K is involved in normal blood coagulation. It plays a key role in helping the blood clot, preventing excessive bleeding. Unlike many other vitamins, vitamin K is not typically used as a dietary supplement.

Essential Vocabulary

Integrity	Цілісність
Mucosal cells	Клітини слизової оболонки
Defense	Захист
Invading organisms	Хвороботворні організми
Night blindness	Куряча сліпота
Susceptibility	Сприйнятливість
Deficiency	Дефіцит
To possess	Мати, володіти, містити
Dietary sources	Харчові джерела
Intestinal tract	Кишковий тракт
Rickets	Рахіт

Osteomalacia	Остеомаляція
Potent	Потужний
Free radical scavenger	Поглинач вільних радикалів
To inhibit	Пригнічувати, стримувати
Enzyme	Фермент
To offset	Компенсувати, відшкодувати
To clot	Згортатися
Dietary supplement	Харчова добавка

TASK 1. Answer the questions:

1. What fat-soluble vitamins do you know?
2. What is vitamin K important for?
3. What are the signs of vitamin A deficiency?
4. Is vitamin D₂ or D₃ plant derived?
5. What are the functions of vitamin D?
6. What problems does deficiency of vitamin D lead to?
7. What is the most potent form of vitamin E?
8. What is the main function of vitamin E?
9. What vitamin is involved in blood coagulation?
10. Is vitamin K typically used as a dietary supplement?

TASK 2. Read the text again and fill in the table:

Vitamin	What is it needed for?	What problems can the deficiency cause?
A		
D		
E		
K		

TASK 3. Multiple choice:

1. What vitamin helps to absorb calcium?

1. A 2. D 3. E 4. K

2. What vitamin is important for the integrity of mucosal cells?

1. A 2. D 3. E 4. K

3. Rickets is caused by the deficiency of ...

1. A 2. D 3. E 4. K

4. Which vitamin is not typically used as a dietary supplement?

1. A 2. D 3. E 4. K

5. Night blindness is caused by the deficiency of ...

1. A 2. D 3. E 4. K

6. Alpha-tocopherol is a form of ...

1. A 2. D 3. E 4. K

7. Excessive bleeding can be caused by the deficiency of vitamin ...

1. A 2. D 3. E 4. K

8. Vitamin ... is a good antioxidant.

1. A 2. D 3. E 4. K

TASK 4. Find some information about natural sources of fat-soluble vitamins.

Topic 8. WATER-SOLUBLE VITAMINS

Niacin, also known as **nicotinic acid**, is an organic compound and a form of **vitamin B₃**, an essential human nutrient. It can be manufactured by plants and animals from the amino acid tryptophan. Niacin is obtained in the diet from a variety of products, such as meat, poultry, red fish (tuna and salmon), lesser amounts in nuts, legumes and seeds. Niacin as a dietary supplement is used to treat pellagra, a disease caused by niacin deficiency. Signs and symptoms of pellagra include skin and mouth lesions, anemia, headaches, and tiredness.

Thiamine, also known as **thiamin** and **vitamin B₁**, is a vitamin, an essential micronutrient, which cannot be made in the body. It is found in food and commercially synthesized to be a dietary supplement or medication. Food sources of thiamine include whole grains, legumes, and some meats and

fish. Grain processing removes much of the thiamine content, so in many countries it is added to products.

Supplements and medications are available to treat and prevent thiamine deficiency and disorders that result from it, including beriberi and Wernicke encephalopathy. They are typically taken by mouth, but may also be given by intravenous or intramuscular injection.

Thiamine supplements are generally well tolerated. Allergic reactions, including anaphylaxis, may occur when repeated doses are given by injection.

Thiamine is required for metabolism including that of glucose, amino acids, and lipids.

Vitamin B₁₂, also known as **cobalamin**, is a water-soluble vitamin involved in metabolism. It is one of eight B vitamins. It is required by animals, which use it as a cofactor in DNA synthesis, in both fatty acid and amino acid metabolism. It is important in the normal functioning of the nervous system via its role in the synthesis of myelin, and in the circulatory system in the maturation of red blood cells in the bone marrow. Plants do not need cobalamin and carry out the reactions with enzymes that are not dependent on it.

Vitamin B₁₂ is the most chemically complex of all vitamins, and for humans, the only vitamin that must be

sourced from animal-derived foods or supplements. Only some archaea and bacteria can synthesize vitamin B₁₂. Most people in developed countries get enough B₁₂ from the consumption of meat or foods with animal sources. Foods containing vitamin B₁₂ include meat, clams, liver, fish, poultry, eggs, and dairy products.

Grain-based foods can be enriched with the vitamin. Supplements and medications are available to treat and prevent vitamin B₁₂ deficiency. They are taken by mouth, but for the treatment of deficiency may also be given as an intramuscular injection.

Choline, or vitamin B₄, is an essential nutrient for humans and many other animals. Choline occurs as a cation that forms various salts. To maintain health, it must be obtained from the diet as choline or as choline phospholipids, like phosphatidylcholine. Humans, as well as most other animal species, do make choline; however, production is generally insufficient. Choline is often not classified as a vitamin, but as a nutrient with an amino acid-like metabolism. In most animals, choline phospholipids are necessary components in cell membranes, in the membranes of cell organelles, and in very low-density lipoproteins.

Symptomatic choline deficiency – rare in humans – causes nonalcoholic fatty liver disease and muscle damage. Excessive consumption of choline (greater than 7.5 g/day) can cause low blood pressure, sweating, diarrhea and fish-like body odor due to trimethylamine, which forms in its metabolism. Rich dietary sources of choline and choline phospholipids include organ meats and egg yolks, dairy products, peanuts, certain beans, nuts, seeds and vegetables with pasta and rice.

Biotin. Biotin, or vitamin B7, plays a critical role in the differentiation of epidermal tissue. Biotin is involved in many metabolic functions: metabolism of essential fatty acids, gluconeogenesis, fatty acid synthesis, amino acid synthesis, propionic acid production. It is present in legumes, cauliflower, mushrooms; liver, kidney, milk and egg yolk.

(Adapted from <https://en.wikipedia.org/wiki/Niacin>,
<https://en.wikipedia.org/wiki/Thiamine>,
https://en.wikipedia.org/wiki/Vitamin_B12,
<https://en.wikipedia.org/wiki/Choline>)

Essential Vocabulary

Pellagra	Пелагра, дефіцит вітаміну B3
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Lesions	Ураження
Whole grains	Цільне зерно
Beriberi	Бері-бері; хвороба, яка уражає нервову систему
Wernicke encephalopathy	Енцефалопатія Верніке, хвороба, спричинена дефіцитом тіаміну
A cofactor	Супутний фактор
Circulatory system	Система кровообігу
Maturation	Дозрівання
Marrow	Кістковий мозок
Archaea	Археї
Cation	Катіон
Insufficient	Недостатній
Fatty liver disease	Жирова хвороба печінки
Low blood pressure	Низький тиск

TASK 1. Answer the questions:

1. What products are the sources of niacin?
2. What problem does the deficiency of niacin cause?
3. What are the symptoms of pellagra?
4. Can thiamin be manufactured by the body?

5. Are thiamin supplements well tolerated?
6. What vitamin is involved in metabolism?
7. What vitamin is obtained only from animal source?
8. What does choline deficiency cause?
9. Where is biotin present?
10. What processes is it involved in?

TASK 2. Fill in the equivalents of the following vitamins:

Niacin	
Cobalamin	
Thiamin	
Choline	
Biotin	

TASK 3. Complete the sentences:

1. Niacin can be manufactured by plants and animals from the amino acid _____.
2. Niacin as a dietary supplement is used to treat _____.
3. Thiamin deficiency causes _____.
4. Symptomatic choline deficiency causes _____.
5. Excessive consumption of choline can cause _____.
6. Biotin, or vitamin B7, plays a critical role in _____.

TASK 4. Fill in the table:

Vitamin	The source (products)	The problems caused by the deficiency
Niacin		
Thiamin		
Cobalamin		
Choline		
Biotin		

VITAMINS: SUMMARY

TASK 1. Speaking. What do you know about vitamins?

1. What are vitamins?
2. Are they present in the body in only very small amounts?
3. What classes of vitamins do you know?
4. What fat-soluble vitamins do you know?
5. What vegetable sources of vitamin A do you know?
6. Where do we get vitamin D from?
7. Why is it important to include vitamin D in the diet?
8. What disease is caused by the lack of vitamin D?

TASK 2. Read the following information: “**The History of Vitamins**”, underline the numerals and practice them:

It was discovered by the Englishman William Fletcher in 1905 that if a vitamin is absent in the diet, a specific deficiency disease may develop. In 1906, an English biochemist Sir Frederick G. Hopkins also discovered that certain food factors were important to health. The term vitamin originated from “vitamine”, a word first used in 1911 by the Polish scientist C. Funk to designate a group of compounds considered vital for life. Elmer V. McCollum and M. Davis discovered vitamin A during 1912-1914. In 1922, Edward Mellanby discovered Vitamin D while researching a disease called rickets. Vitamin B₂ was discovered by D.T. Smith in 1926.

TASK 3. Look at the table about the vitamin content in different products and make up sentences taking into consideration the word order, e.g. Vitamin ... is required for ... It is present in

Vitamin	The Product	Effect on the Health
A	carrots, fruits, green leaves, milk	important for vision, teeth
B1	rice, wheat germ, pork, liver, peas,	important for growth

	legumes	
B2	milk, egg white, liver, green leaves, grain, legumes, liver, dark green vegetables	required in metabolic processes; necessary for growth, skin, nails.
B6	pork, meat, cereals, legumes, green vegetables	prevents nervous disorders and skin diseases; helps lower the risk of heart attacks
B12	food of animal origin only(!): liver, kidney, fish, eggs, milk and milk products	maintains red blood cells; helps lower the risk of heart attacks
C	citrus fruits, broccoli, strawberries, melon, green pepper, tomatoes, dark green	formation of hemoglobin

	vegetables, potatoes	
	fish oils, fish liver, eggs	prevents rickets

Guess what is the last vitamin. Why is it so important for children?

Topic 9. HORMONES

A hormone is a chemical that is made by special cells, usually within an endocrine gland, and it is released into the bloodstream to send a message to another part of the body. It is often referred to as a ‘chemical messenger’. Hormones are found in all multicellular organisms and their role is to provide an internal communication system between cells located in distant parts of the body.

In the human body, hormones are used for two types of communication. The first is for communication between two endocrine glands, where one gland releases a hormone which stimulates another target gland to change the levels of hormones that it is releasing. The second is between an endocrine gland and a target organ, for example when the pancreas releases insulin which causes muscle and fat cells to take up glucose from the bloodstream.

Since hormones are released into the bloodstream and can therefore be carried around the entire body, they can perform both of these actions on many different targets. The complex interplay between the glands, hormones and other target organs is referred to as the endocrine system. Hormones affect many physiological activities including growth, metabolism, appetite, puberty and fertility.

(from <https://www.yourhormones.info/hormones>)

Essential Vocabulary

Endocrine gland	Ендокринна залоза
To release	Вивільняти, викидати
Bloodstream	Потік крові
Multicellular organisms	Багатоклітинні організми
Target gland	Цільова залоза
Pancreas	Підшлункова залоза
To perform	Виконувати
Complex interplay	Складний взаємозв'язок
To affect	Впливати
Puberty	Пубертат
Fertility	Плідність

TASK 1. Answer the questions:

1. What is a hormone?
2. Where is it found?
3. Why are hormones released into the bloodstream?
4. Are hormones found in all multicellular organisms?
5. What is the function of hormones?
6. What is the first type of communication for hormones?
7. What can you say about the second type?
8. Why can hormones perform both of these actions on many different targets?
9. What is the endocrine system?
10. What activities do hormones affect?

TASK 2. Put the words into the correct order:

1. hormone / a / is / cells. A / is / chemical / that / made / by / special
2. affect / Hormones / many / activities. / physiological
3. are / in / Hormones / found / all / organisms. / multicellular
4. human / the / body, / used / two / of / communication. / In / hormones / are / for / types
5. The / between / complex / the / glands, / and / target / is / to / as / endocrine / system. / interplay / hormones / other / organs / referred / the

TASK 3. Find and underline all the examples of the Passive Voice in the text.

TASK 4. Write the Past Participle of the following verbs and make up sentences with them: *to make, to release, to send, to refer, to find, to provide, to locate, to use, to stimulate, to change, to cause, to carry, to perform, to include.*

Topic 10. AMINO ACIDS

Amino acids are molecules used by all living things to make proteins. Your body needs 20 different amino acids to function correctly. Nine of these amino acids are called essential amino acids. Essential amino acids must be consumed through the food you eat. Essential amino acids can be found in a variety of foods, including beef, eggs and dairy.

Amino acids are involved in many important roles in your body. Amino acids are the building blocks of protein. Proteins are long chains of amino acids. Your body has thousands of different proteins that each have important jobs. Each protein has its own sequence of amino acids. The sequence makes the protein take different shapes and have different functions in your body.

You can think of amino acids like the letters of the alphabet. When you combine letters in various ways, you make

different words. The same goes for amino acids — when you combine them in various ways, you make different proteins.

Your body needs 20 different kinds of amino acids to function correctly. These 20 amino acids combine in different ways to make proteins in your body. Your body makes hundreds of amino acids, but it can't make nine of the amino acids you need. These are called essential amino acids. You must get them from the food you eat.

Your body produces the rest of the 11 amino acids you need. These are called nonessential amino acids. Some nonessential amino acids are classified as conditional. This means they're only considered essential when you're ill or stressed. Your body uses amino acids to make proteins. The different types of amino acids and the way they're put together determine the function of each protein. So, amino acids are involved in many important roles in your body. Amino acids help:

- Break down food.
- Grow and repair body tissue.
- Make hormones and brain chemicals (neurotransmitters).
- Provide an energy source.
- Maintain healthy skin, hair and nails.

- Build muscle.
- Boost your immune system.
- Sustain a normal digestive system.

You don't need to eat foods with amino acids at every meal, but it's important to get a balance of them throughout your day.

Essential amino acids can be found in many different foods. The best sources of amino acids are found in animal proteins such as beef, poultry and eggs. Animal proteins are the most easily absorbed and used by your body.

Foods that contain all nine essential amino acids are called complete proteins. These foods include beef, poultry, fish, eggs, dairy, soy, quinoa and buckwheat.

Foods that contain some but not all the essential amino acids are called incomplete proteins. These foods include nuts, seeds, beans and some grains. If you follow a vegetarian or vegan diet, you need to include several types of incomplete proteins in order to ensure you're consuming all nine essential amino acids. You can usually get all the essential amino acids your body needs by eating a healthy, balanced diet.

(Adapted from

<https://my.clevelandclinic.org/health/articles/22243-amino-acids>)

Essential Vocabulary

Essential fatty acid	Незамінна жирна кислота
To consume	Споживати
Chains	Ланцюжки
Consequence	Послідовність
Conditional	Умовний
To determine	Визначати
To repair body tissues	Відновлювати тканини тіла
Neurotransmitter	Нейромедіатор
To boost immune system	Покращувати роботу імунної системи
To sustain	Підтримувати
Complete proteins	Повноцінні
Quinoa	Кіноа (хлібна зернова культура, яка росте в Андах, у Південній Америці)
Buckwheat	Гречана крупа

TASK 1. Answer the questions:

1. What is an amino acid?
2. How many amino acids does our body need?
3. How many amino acids are essential ones? What sources can we get them from?

4. Why are amino acids called building blocks of proteins?
Why are all proteins different?
5. Can nonessential amino acids be produced by the body?
6. What products are the best sources of amino acids?
7. What foods are called complete proteins?
8. What foods are called incomplete proteins?
9. Why do vegetarians need to consume different incomplete proteins?

TASK 2. Complete the sentences:

1. Amino acids are _____ used by all living things to make _____.
2. You can usually get all the _____ amino acids your body needs by eating a healthy, balanced diet.
3. Your body needs _____ different amino acids to function correctly.
4. If you follow a _____ or _____ diet, you need to include several types of incomplete proteins.
5. Amino acids are the building blocks of _____.
6. Foods that contain some but not all the essential amino acids are called _____ proteins.
7. Your body makes _____ of amino acids, but it can't make _____ of the amino acids you need.
8. Amino acids help to sustain a normal _____ system.

9. It's important to get a balance of _____ throughout your day.

10. _____ proteins are the most easily absorbed and used by your body.

TASK 3. Put down all the verbs from the text and write the forms of the Past Simple and Past Participle.

TASK 4. Prepare a project on the topic “Amino acids”.

Topic 11. OUR UNIVERSITY (PART 1: MODERN TIMES)



I live and study in the city of Lviv. It is a big city in Western Ukraine. There are many state higher schools here. Stepan Gzhytskyi National University of Veterinary Medicine and Biotechnologies Lviv is one of them.

There are two forms of studying at our University: full-time and extra-mural. There are about 30 chairs at the University. More than 300 lecturers and professors work here.

The University is run by the Rector and the faculties are headed by Deans. Our University trains veterinary doctors, technologists of production and processing of animal products, food technologists, ecologists, managers, marketing specialists, and many others. They are specialists whom our young state needs today and will need tomorrow. Some students will graduate with a degree of a bachelor; the others will go on to do a second degree of a master. There are also postgraduates who do researches and prepare to get a PhD. They will teach students at higher educational institutions and continue their scientific work.

The University has five educational buildings with many lecture-halls, classrooms and laboratories. Four hostels, two libraries, four clinics, a sports complex and a sports camp are at the students' disposal. There are three museums at the University: the Museum of University's History, the Museum

of Horseshoes, and the Anatomical Museum. Our students have three or four lectures or practical classes a day. They work much at lessons, in laboratories, and in the library. The students also work in different scientific circles and go in for sports.

TASK 1. Find the following words and word expressions in the text:

вищий навчальний заклад, державний, факультет, стаціонарна форма навчання, заочна форма, кафедра, очолювати, декан, ректор, керувати, навчати, навчальний корпус, лекційна зала, гуртожиток, у розпорядженні студентів, науковий гурток, займатися спортом.

TASK 2. Answer the questions:

1. What is the name of your higher school?
2. What faculty do you study at?
3. What forms of studies are there at the University?
3. How many chairs are there at the University?
4. Who runs the University?
5. Who heads the faculties?
6. What specialists will our students become?
7. What facilities are at the students' disposal?
8. What museums can you visit here?

TASK 3. Fill in auxiliary words *am, is, are, do, does, has got, don't, doesn't, haven't got*:

1. Where ... you study?
2. I ... a first-year student.
3. My friend ... speak German.
4. The professor ... a new group of students.
5. The students ... attend classes in the evening.
6. We ... will-be specialists whom our young state needs.
7. Where ... our University situated?
8. What ... a Dean do?
9. I ... your text-book. You have given it to somebody else.

TASK 4. Write sentences in the Present Indefinite Tense:

1. Our higher school (to train) veterinary students and other specialists.
2. Deans (not/to head) the university.
3. A rector (not/to run) the faculty.
4. Our state (to need) well-educated specialists?
5. Your friend (to study) at the University too?
6. The students (to attend) practical classes in laboratories.
7. Our University (to be) one of sixteen state higher schools in Lviv.
8. There (to be) three museums at the University?
9. There (not/to be) any texts about economics in this book.

TASK 5. Listen to the text and re-tell it. What are the similarities and differences between students' life in Great Britain and our country?

OXFORD COLLEGES

Oxford is an old university in England. This university has 32 colleges – 27 for men and 5 for women. There are 16 faculties, including the veterinary one. A large college has about 500 students, about one hundred students study at a small college.

During the first days at Oxford the student meets his tutor and begins to work. The tutor tells him about the lectures which he must attend and gives the list of books that the student must read during the term.

At the beginning or end of each term the student must take examinations in a written form.

At Oxford the working hours of students are from 9 a.m. till 1 p.m. At 9 o'clock they see their tutors or go to the library or to the lectures. From 2 p.m. till 5 p.m. they go in for sports and do different exercises. From 5 p.m. till 7 p.m. they work in the library or in the laboratory. At 7 p.m. they have dinner. After dinner the students have club activities or attend different societies. At about 10 p.m. they begin to work again and work for about two hours.

TASK 6. Memorize the following abbreviations and word combinations concerning higher education:

BA – Bachelor of Arts – бакалавр у галузі гуманітаних дисциплін;

BSc – Bachelor of Science – бакалавр технічних дисциплін;

MA – Master of Arts – магістр гуманітарних дисциплін;

MSc – Master of Science – магістр технічних дисциплін;

PhD – Doctor of Philosophy – доктор філософії (у нас – кандидат наук);

To enter the university – вступати до університету;

To take examinations – скласти іспити;

To pass examinations – скласти успішно іспити;

To fail examinations – не скласти іспити;

To do a degree – здобувати ступінь;

To have a degree – мати ступінь;

To continue to do a second degree – продовжити навчання на здобуття другого ступення;

To do research into/on – робити дослідження у певній галузі

TASK 7. Translate the following sentences:

1. Він здобуває ступінь бакалавра фізики.
2. Він має ступінь бакалавра англійської мови.
3. Ми збираємося скласти іспити.

4. Мій викладач досліджує вплив екології на здоров'я тварин.
5. Ми збираємося продовжити навчання у магістратурі.
6. Було досить складно вступити до університету.
7. Мій батько – кандидат наук.
8. В університеті можна здобути ступені бакалавра або магістра з гуманітарних дисциплін.
9. Необхідно успішно скласти іспити.
10. Я не можу провалити іспити.

Topic 12. OUR UNIVERSITY

(PART 2: HISTORY)

Our university has rich and glorious history that begins with the department of veterinary medicine founded in 1784 at the medical faculty of Lviv University. In 1881 the veterinary school was opened in the city of Lviv. In 1896 the school was renamed into Lviv Academy of Veterinary Medicine. Since 1939 it was the Veterinary Institute with one faculty only. The second faculty – Zootechnical or Zooengineering, now the Faculty of Biology and Technology – was set up in 1949. In 1991 the third faculty – the Sanitary and Technological Faculty, now the Faculty of Food Technologies and

Biotechnology – was opened here. In June 1992 the higher school regained its former name – the Academy of Veterinary Medicine. In 2002 the Faculty of Economics and Management was created.

Professor Peter Seifman was the first director of Veterinary school, professor Joseph Spielman was the first rector of the Academy. In 1994 the Academy received the name of its former student, prominent scientist – Prof. Stepan Gzhytskyi (1900-1976). In 2007 the Academy was renamed into the University.

TASK 1. Answer the questions:

1. How old is our University?
2. What faculty is the oldest one?
3. How is the history of our higher school connected with the history of Ivan Franko National University?
4. When was the veterinary school founded?
5. How many faculties were there in the former Institute in 1939?
6. When was the second faculty established? What was its name?
7. When was the Sanitary and Technological Faculty created? What is its name today?

8. When did our higher school regain the name of the Academy?
9. When was the faculty of Economics and Management created?
10. Who was the first director of Veterinary school?
11. Who was Joseph Spielman?
12. Whose name did our University receive in 1994?
13. When did the Academy become a University?

TASK 2. Match the words on the left with synonyms or explanations on the right:

a department	eminent, famous, celebrated
to found	to change the name
glorious	Previous
to rename	notable, remarkable
to regain	a scholar
former	to establish, to create, to open, to set up
prominent	to receive back
a scientist	a chair

TASK 3. Divide the following verbs into regular and irregular ones: *to be, to have, to begin, to found, to open, to rename, to set (up), to regain, to create, to receive*. Write three forms of

the mentioned-above words: the Infinitive, the Past Indefinite, the Past Participle:

Regular verbs	Irregular verbs
to open-opened-opened	to be-was/were-been
...	...

TASK 4. Make up sentences with the words from Task 3.

TASK 5. What constructions prevail in the text: active or passive ones? Give examples.

TASK 6. Listen to the text and re-tell it:

BRITISH UNIVERSITIES

Most UK universities fall into one of six categories:

1. Ancient universities - the seven universities founded before 1800, Oxford and Cambridge including;
2. Universities chartered in the 19th century (for example, London University);
3. Red Brick universities - large civic universities chartered at the beginning of the 20th century before World War II;

4. Plate Glass universities - universities chartered after 1966 (formerly described as the “new universities”);
5. The Open University - The UK's “open to all” distance learning university (established in 1968);
6. The New Universities - Post-1992 universities formed from Polytechnics or Colleges of Higher Education.

The central co-ordinating body for universities in the United Kingdom is Universities UK.

The academic year at British Universities has three terms. They are from October to the middle of December, from the middle of January to the end of March and from the middle of April to July. There are ten weeks in each term. The students have examinations at the end of each term, that is at the end of the autumn, spring and summer terms. Final examinations are at the end of the course of studies.

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