

**GUIDELINES FOR TRAINING
OF MEDICAL STUDENTS
TO ENGLISH EXAM**

**МЕТОДИЧНІ ВКАЗІВКИ
З ПІДГОТОВКИ СТУДЕНТІВ-МЕДИКІВ
ДО СКЛАДАННЯ ІСПИТІВ
З АНГЛІЙСЬКОЇ МОВИ**

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
Харківський національний медичний університет

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ПЕРЕДМОВА

Сучасний лікар, який бажає бути обізнаним на найсучасніші відомості зі своєї професійної галузі, має ознайомитися з неймовірним обсягом спеціальної літератури, видрукованої англійською мовою. Навички читання іноземною мовою мають велике значення для професійного вдосконалення. За наявності великої кількості джерел інформації набуває важливості вміння розшукати потрібну інформацію (пошукове читання) та зрозуміти основні відомості тексту (ознайомлювальне читання).

Це видання призначене для навчання студентів медичних вищих навчальних закладів. Основними завданнями видання є розвиток навичок роботи з навчальною та довідковою медичною літературою, використовуючи усі види читання, обговорювати медичні проблеми, писати історії хвороби. Видання призначене для самостійної роботи студентів в аудиторії під керівництвом викладача, а також для самостійної позааудиторної роботи.

Розроблені вправи з підготовки до складання іспитів з англійської мови передбачають, що їх виконання проводиться у декілька етапів – від ознайомлювального й пошукового до читання з повним охопленням змісту. Тексти супроводжуються вправами, які контролюють розуміння прочитаного й водночас формують певні комунікативні компетенції: отримання інформації шляхом розпитування, погодження чи непогодження з думкою співбесідника. У кожному розділі є вправи, присвячені розвитку навичок аналізу та побудови термінів, пов'язаних з темою тексту. Окремі розділи містять вправи, присвячені роботі з найбільш поширеними скороченнями. На етапі післятекстової роботи студентам пропонується обговорення певних проблем, заповнення історії хвороби. Використання таблиць, схем, допоможе задіяти різні види пам'яті до засвоєння мовного матеріалу.

Розділи, присвячені доклінічній тематиці, містять вправи, які формують мовленнєві навички, необхідні для академічної та професійної діяльності. Розділи, присвячені клінічній тематиці, містять вправи, які удосконалюють підготовку до іспитів з англійської мови.

Кожний розділ закінчується списком необхідної термінології. Термінологічна та нетермінологічна лексика семантизується за допомогою дефініцій англійською мовою, що допоможе студентами працювати з англійською довідковою літературою. Крім того, така робота з лексикою допоможе засвоїти процедурний вокабуляр, тобто лексику, яка використовується при складанні іспитів з англійської мови

Unit 1

Task 1.1. Read the following words and compare them with Ukrainian equivalents (*international words*).

Operation, potential, component, progress, reproduction, activation, signal, passive, proportion, correction, program, positive, section, experiment, integration.

Task 1.2. Match the words.

construct	regulated
learn	undergone
regulate	originated
undergo	constructed
originate	learnt
find	
found	

Task 1.3. Read the text A. What structure does it deal with?

Text A

An experiment is conducted in which the mitochondrial content of various tissues is studied. It is found that the mitochondrial content is directly proportional to the amount of energy of one cell is required to generate and expend. The mitochondrial content is most likely greatest in which of the following types of cells?

- | | |
|--------------------------|----------------------|
| (A) Cardiac muscle cells | (E) Hepatocytes |
| (B) Chondrocytes | (F) Osteocytes |
| (C) Endothelial cells | (G) White adipocytes |
| (D) Epidermal cells | |

Task 1.4. The question of the text A is about:

- mitochondrial content;
- mitochondrial energy;
- mitochondrial functioning;
- amount of mitochondria.

Task 2.1. Read the words in each line and define their roots.

1. Original; originate; originating; originally;
2. Implement; implemented; implementation;
3. Create; creator; creative; creation; creature;
4. Operate; operation; operative; operator;
5. Active; activate; activity; activator; activation.

Task 2.2. Read the texts B and C. What subject is it? (Histology, Microbiology, Cytology) What is the answer?

Text B

During an experimental study, an investigator finds that the regulation of cell cycle and programmed cell death may be initiated by the mitochondrion. The interaction of the mitochondrion with the activation of the caspase family of proteases and subsequent apoptosis is most likely mediated by which of the following?

- (A) Calcium release
- (B) cAMP production
- (C) Cytochrome *c* release
- (D) GTP binding
- (E) Nitric oxide release

Text C

A pathologist uses monoclonal antibodies against several intermediate filament proteins and finds that a tumor section stains positive for cytokeratin only. The tumor most likely originated from which of the following tissues?

- (A) Connective
- (B) Epithelial
- (C) Glial
- (D) Muscle
- (E) Nemat

Task 2.3. Finish the following statements using the information from the texts.

1. The mitochondrion initiates ... (text B)
2. Cytochrome *c* release mediates ... (text B)
3. In some cases monoclonal antibodies are used against ... (text C)
4. Epithelial tissues are more frequently the origin ... (text C)

Unit 2

Task 1.1. Study the following words and choose:

a) nouns

- 1) significant, significance, signify, signification, significative;
- 2) apparent, apparentness, apparency, apparently;
- 3) concentration, concentrative, concentrate, concentrativeness;
- 4) inherit, inheritable, inheritance, inherited, inheritor.

b) adjectives

- 1) science, scientific, scientifically, scientist;
- 2) analyze, analysis, analyzable, analyzer;
- 3) suggestible, suggest, suggestion, suggestive;
- 4) administration, administer, administrator, administrative.

Task 1.2. Fill in the gaps with one of the following words:

increases, sign, apparent, deficiency, inherited, administration

- 1) Blood coming out a nostril is _____ to the patient, physician and others.
- 2) There are different genetic factors causing _____ diseases in people.
- 3) Paleness could be a _____ of anemia.
- 4) The _____ of medications was prescribed to hospitalized patients by a physician.
- 5) In iron _____ anemia, the red cells appear abnormal, unusually small and pale.
- 6) This medication _____ blood clotting, the percentage of hemoglobin and red blood cells.

Task 1.3. Read the text A and find the following information in it:

- test results;
- way of examination;
- which procedures were carried out;
- amount of tyrosine;
- structures used in enzymatic analysis.

Text A

During normal screening for phenylketonuria, a male newborn has a serum phenylalanine concentration of 35 mg/dL (greater than 20 mg/dL is considered a positive test). Signs of tyrosine deficiency also are apparent. Enzymatic analysis using cultured fibroblasts, obtained after circumcision, shows normal activity of phenylalanine hydroxylase. A possible explanation for these findings is a deficiency in function of which of the following coenzymes?

- (A) Adenosylcobalamin
- (B) Biopterin
- (C) Dihydroquinone
- (D) Pyridoxal phosphate
- (E) Tetrahydrofolic acid

Task 2.1. Match the words and word expressions with the similar meaning.

- | | |
|-------------------|----------------------|
| 1) inherited | a) disturbance |
| 2) concentration | b) prescription |
| 3) detectable | c) augmented |
| 4) disorder | d) hereditary |
| 5) administration | c) accumulation |
| 6) oral | d) observable |
| 7) increased | e) through the mouth |

Task 2.2. Read the text B and find the phrase corresponding to the question.

- Which enzyme is in an abundant concentration?
- Which enzyme is absent?
- Which enzyme is observed?
- Which enzyme is in a decreased concentration?

Text B

An inherited disorder of carbohydrate metabolism is characterized by an abnormally increased concentration of hepatic glycogen with normal structure and no detectable increase in serum glucose concentration after oral administration of fructose. These two observations suggest that the disease is a result of the absence of which of the following enzymes?

- (A) Fructokinase
- (B) Glucokinase
- (C) Glucose-6-phosphatase
- (D) Phosphoglucomutase
- (E) UDP glucose

Task 2.3. Read the following statements and say whether they are true or false. Correct the false ones.

- 1) The disorder is caused by the absence of one enzyme.
- 2) An abnormally decreased concentration of hepatic glycogen with normal structure is one of the two factors of a hereditary disorder of carbohydrate metabolism.
- 3) These two observations are the signs of an amino acid metabolism disorder.
- 4) An increase in serum glucose accumulation after oral administration of fructose is not found.

Unit 3

Task 1.1. Arrange the words of the groups in pairs

a) with the similar meaning:

- | | |
|----------------|-------------------------|
| 1) to show | a. small artery |
| 2) membrane | b. abnormal growth |
| 3) analysis | c. lienal |
| 4) splenic | d. to demonstrate |
| 5) arteriole | e. test |
| 6) excrescence | f. sheet/covering layer |

b) with the contrary meaning:

- | | |
|------------------|---------------|
| 1) to thicken | a. unlikely |
| 2) concentration | b. decreased |
| 3) positive | c. to thin |
| 4) likely | d. nuclear |
| 5) antinuclear | e. dispersion |
| 6) increased | f. negative |

What are their equivalents in Ukrainian?

Analyze the words antinuclear, antibody. Define prefixes. Find other medical words with the same prefix?

Task 1.2. Do you know the terms and structures corresponding to the following definitions? Read the text A and find them in it.

- inflammation of the pleura caused by infection, injury or tumor;
- relating to an accumulation of capillaries in the kidney acting as a filter of the blood;
- a fibrous protein, the chief protein constituent of connective tissues;
- an abnormal increase in the number of lymphocytes in blood;
- the structure between the left atrium and the left ventricle of the heart, preventing blood flow into the atrium during systole;
- an examination of a body after death to determine the cause of death.

Text A

An autopsy of a 24-year-old woman shows pleuritis, membranous thickening of glomerular capillary walls, concentric rings of collagen around splenic arterioles, and excrescences on the underside of the mitral valve. Analysis of blood is most likely to show which of the following?

- (A) Antinuclear antibody
- (B) Increased C3 concentration
- (C) Lymphocytosis
- (D) Monoclonal gammopathy
- (E) Positive bacterial culture

The question is about:

- **autopsy results;**
- **blood test results;**
- **visual examination results.**

Task 1.3. Answer the following questions.

- 1) Which changes of glomerular capillary walls are apparent?
- 2) Where are concentric rings of collagen detected?
- 3) Which structure is found on the mitral valve?
- 4) Which procedures are mentioned in the case?

Task 2.1. Study the following verbs. Do you know their equivalents in Ukrainian? Define the root and find the nouns of the same group in the text B:

- 1) bind - _____ ;
- 2) reverse - _____ ;
- 3) blockade - _____ ;
- 4) investigate - _____ ;
- 5) inhibit - _____ ;
- 6) mechanize - _____ .

Analyze the words infection, concentration. Define suffixes. If possible, build nouns with this suffix from the verbs given above?

Task 2.2. Read the text B and study the highlighted abbreviations. What do they stand for?

What is the question about?

Text B

During an experimental study, an investigator develops a new member of the class of non-nucleoside reverse transcriptase inhibitors. This new drug most likely inhibits HIV infection through which of the following mechanisms?

- (A) Binding to reverse transcriptase
- (B) Binding to RNase H
- (C) Blockade of integration
- (D) Incorporation into viral DNA
- (E) Phosphorylation of nucleoside triphosphates

Task 2.3. Which of the following IS NOT MENTIONED in the text B?

- duration of an experiment;
- purpose of an experiment;
- name of the class of inhibitors;
- mechanisms of an investigator’s work;
- probable effect of a new drug.

Unit 4

Task 1.1. Read the following words and compare them with Ukrainian equivalents. Distribute the words into three columns. Fill in other boxes with the proper forms of the words. Are they all different?

prevent, progress, multiple, synthesis, central, system

<i>noun</i>	<i>adjective</i>	<i>verb</i>

Task 1.2. Read the text A and divide it into two parts: background and question. Which phrase corresponds to the question?

What drug is developed?

Which cells are protected by a new drug?

What occurs in the progress of multiple sclerosis?

Text A

A new drug is developed that prevents the demyelination occurring in the progress of multiple sclerosis. The drug protects the cells responsible for the synthesis and maintenance of myelin in the central nervous system. These cells are most likely which of the following?

- (A) Astrocyte
- (B) Ependymal cell
- (C) Microglial cell
- (D) Oligodendrocyte
- (E) Schwann cell

Task 1.3. Complete the gaps with one correct variant.

1. Cells responsible for the synthesis and maintenance of myelin are _____ by a new drug.
 - a) produced
 - b) protected
 - c) multiplied
2. Myelin is _____ in the central nervous system.
 - a) protected and maintained
 - b) synthesized and increased
 - c) synthesized and stored
3. The demyelination is _____ by a new medicine.
 - a) prevented
 - b) developed
 - c) progressed

Task 2.1. Read the following words. Do you know their meaning? What do the underlined words mean in English and Ukrainian?

risk, department, personnel, virus, number, suppository, papilloma, radiation, human, plan, amputation, operative, pathology, oral, vaccine, bacterium, effective, dramatically

Task 2.2. Analyze the word oral. Define the suffix and choose the correct answer.

This suffix is used to form _____.

- a) nouns
- b) adjectives
- c) adverbs

Use this suffix to build new words.

- vaccine –
- cervix –
- vagina –
- virus –
- bacterium –

Task 2.3. What do you think the term “Pap smears” means?

- specialist
- cervical test
- medical instrument

The verb “to fall off” signifies:

- a) to increase
- b) to develop
- c) to decrease

Read the text B and check whether you are right.

Text B

The chairman of a large pathology department is planning for the personnel that he will need in the future. He is trying to decide whether his department will have more need for a dermatopathologist or a cytopathologist. He decides against the cytopathologist because he expects the number of Pap smears to fall off dramatically in the future. The development of which of the following is the most likely reason for this expected decrease in the number of Pap smears?

- (A) Highly effective oral drugs that prevent dysplasia of the uterine cervix
- (B) Operative guidelines requiring the amputation of the cervix for mild squamous dysplasia
- (C) Three-dimensional conformal radiation treatment
- (D) A vaccine against high-risk human papilloma viruses
- (E) Vaginal suppositories that markedly reduce the number of bacteria in the vagina

The question of the text B is about:

- decreased number of specialists
- needs of the chairman
- method of treatment
- decision of the chairman
- work of the department

Unit 5

Task 1.1. Read the following words and compare them with their Ukrainian equivalents. Do they have the similar meaning in both languages?

Factor, spore, autoclave, sterilize, conduct, structure, activate, sterilization, method, toxin, culture, adhesion.

Task 1.2. Study the following pairs of words. What meaning do the italicized prefixes have?

effective – *ineffective* mature – *immature* reversible – *irreversible* legal – *illegal*

Formulate the rule and build the words with the opposite meaning.

- logical –
- activated –
- regular –
- appropriate –
- correct –
- voluntary –
- mobile –

Task 1.3. Read the text A. What structure does it deal with?

Text A

An investigator conducts an experiment on *Clostridium perfringens* and then sterilizes the culture dishes by autoclaving. This method of sterilization is most appropriate because it ensures that which of the following bacterial structures are inactivated?

- (A) Adhesion factors
- (B) Endotoxins
- (C) Fimbriae
- (D) Pili
- (E) Spores

The question is about:

- method of sterilization
- investigator's experiment
- bacterial structures

Task 2.1. Supply the words to the definitions.

- | | |
|----------------|--|
| 1) vomiting | a) a feeling of physical suffering caused by injury or illness |
| 2) nausea | b) to make something less pure or poisonous |
| 3) diarrhea | c) bringing food up from the stomach through the mouth |
| 4) pain | d) a feeling before you are going to vomit |
| 5) contaminate | e) an abnormally frequent discharge of fluid fecal matter from the bowel |

Task 2.2. Read the text B. Which phrase corresponds to the question?

Which analysis should be performed?

Which microorganisms have increased in number?

What is the number of microorganisms?

What food is contaminated?

Text B

At a banquet, the menu includes fried chicken, home-fried potatoes, peas, chocolate eclairs, and coffee. Within 2 hours, most of the diners become violently ill, with nausea, vomiting, abdominal pain, and diarrhea. Analysis of the contaminated food is most likely to yield large numbers of which of the following organisms?

- (A) *Enterococcus faecalis*
- (B) *Staphylococcus aureus*
- (C) *Proteus mirabilis*
- (D) *Salmonella typhimurium*
- (E) *Escherichia coli*

Task 2.3. Say if the phrases are true or false.

1. All the diners became seriously ill in 2 hours.
2. There are no sweets in the menu at a banquet.
3. The increased number of microorganisms is detected in the analysis of food.
4. Nausea, vomiting, abdominal pain, and diarrhea are the symptoms of food poisoning.

Unit 6

Task 1.1. Study the following words and choose:

a) nouns

- 1) flow, inflow, outflow, flow out, flowing;
- 2) measurable, measure, measurement, measuring;
- 3) perfusate, perfuse, perfusion, perfusely;
- 4) elevate, elevation, elevated, elevator.

b) adjectives

- 1) sustain, sustainability, sustainable, sustained;
- 2) abrupt, abruption, abruptly, abruptness;
- 3) pressure, suppressive, presser, pressor;
- 4) exhibit, exhibited, exhibition, exhibitory.

Task 1.2. Read the text A and define which phrase corresponds to the question.

What organ is studied?

What is the examined organ showing?

How is the study carried out?

What are the results of measuring?

Text A

The blood flow through an organ is measured while the perfusion pressure is varied experimentally. An abrupt, sustained increase in perfusion pressure increases flow initially, but over the course of 1 minute, the flow returns nearly to the baseline level despite continued elevation of the perfusion pressure. The organ under study is exhibiting which of the following?

- (A) Active hyperemia
- (B) Autoregulation
- (C) Ischemia
- (D) Reactive hyperemia

Task 1.3. Fill in the gaps using the proper words from the text A.

1. My nutritionist said I should _____ my diet more.
2. In the _____ of discussion many points of view were considered.
3. Blood test can determine the _____ of hormones in the body.
4. The dosage from one to three pills was _____ by our GP.

Task 2.1. Match the words with the similar meaning.

subsequent	inside
release	mediator
store	happen
occur	discharge
internal	following
messenger	stock

Task 2.2. Read the text B. What is the background about?

- increase of calcium
- activation of a hormone
- release of calcium
- internal stores

Text B

A hormone is known to activate phospholipase C with subsequent release of calcium from internal stores. The release of calcium most likely occurs as a result of an increase in the concentration of which of the following intracellular second messengers?

- (A) Calcium
- (B) cAMP
- (C) cGMP
- (D) Diacylglycerol
- (E) Inositol 1,4,5-trisphosphate

Task 2.3. Which of the following IS NOT MENTIONED in the text B?

- activation of phospholipase C
- amount of calcium
- hormone concentration
- results of the calcium release

Unit 7

Task 1.1. Study the medical words. Define the combining forms. If possible, find the words of the same root.

pancreatic, cholecystokinin, gastrin, glucagon, secretin, vasoactive, polypeptide

Task 1.2. Read the text A. Which phrase corresponds to the question?

- Which substance will be infused?
- Which substance will most likely be increased by pancreatic secretion?
- Which hormone will probably increase pancreatic secretion?
- Which substance will be secreted?

Text A

After an overnight fast, a 52-year-old man undergoes infusion of acid through a catheter into the upper duodenum. This most likely will increase pancreatic secretion mainly through the action of which of the following substances?

- (A) Cholecystokinin
- (B) Gastrin
- (C) Glucagon
- (D) Secretin
- (E) Vasoactive intestinal polypeptide

Task 1.3. Read the text A again and find:

- the infused substance;
- a medical instrument;
- a medical procedure;
- preparatory measures;
- a part of the digestive tract.

Task 2.1. Fill in the gaps with the following words putting some of them into the correct form. There is one extra word in the box.

particle, mucus, cough, inhale, adhere, reflex, initiate

1. There are two types of _____ “wet” (productive) and “dry” (nonproductive).
2. A productive or “wet” cough brings up _____ or phlegm.
3. What structure allows bacteria to _____ to surfaces?
4. An allergic reaction is _____ by specific antibodies.
5. Ice is made up of _____ of water.
6. _____ air contains more oxygen and less carbon dioxide.

Task 2.2. Read the text B.

Text B

During an experiment on the cough reflex in humans, a volunteer inhales air containing different amounts of particles that will impact and adhere to mucus primarily in the trachea. Blockade of which of the following receptors would most likely prevent this volunteer’s reflex to initiate a cough?

- (A) Chemoreceptors
- (B) Irritant receptors
- (C) J receptors
- (D) Proprioceptors
- (E) Stretch receptors

The question of the text B is about:

- necessity of blockade;
- receptors preventing cough reflex;
- initiation of cough reflex;
- a volunteer’s reflex.

Task 2.3. Answer the following questions.

1. What is studied in the experiment?
2. Who participates in this research?
3. What does the inhaled air contain?
4. Where will the adhesion of particles be observed?

Unit 8

1. Read the key words and try to find out what this text is about

A couple, an allele, to possess, mutation, a disease, sera, a child, glucocerebrosidase

2. Match the verb with its past form

marry screened
have was
find married
screen found
be assessed
assess had

3. Read the text A. What is the main idea of it?

- mutation due to radiation
- treatment of children with Gaucher disease
- probability of inheritance of Gaucher mutation
- screening of blood donors

A. A married couple is screened to assess the risk for Gaucher disease in their children. The activities of glucocerebrosidase in the sera of the mother and father are 45 % and 55 %, respectively, of the reference value. The couple has one child. Which of the following is the probability of the child possessing one or more alleles of the Gaucher mutation?

- (A) 0
- (B) 0.25
- (C) 0.5
- (D) 0.75
- (E) 1.0

4. Find the terms from the text that correspond to the definitions:

- a lysosomal storage disease characterized by an accumulation of glucocerebrosidase.
- a relatively permanent change in hereditary material that involves either a change in chromosome structure or their number.
- an enzyme of mammalian tissue that accelerates the hydrolysis of the glucose part and is deficient in patients affected with Gaucher disease
- any of the alternative forms of a gene that may occur at a given locus

5. Read the words in each line and define their roots.

- probable, probability, probably
- assess, assessing, assessment, assessed
- deficient, deficiency, deficit, deficiently
- accumulate, accumulated, accumulating, accumulation

6. Match a noun and a verb corresponding to it.

production generate
processing reduce
generation produce
reduction complain
complaint transport
transportation process

7. Read the text B. What subject is it? (Histology, Biochemistry, Microbiology, Cytology) What is the answer?

B. During the processing of particular N-linked glycoproteins, residues of mannose 6-phosphate are generated. Which of the following proteins is most likely to undergo this step in processing?

- (A) Apo B receptor
- (B) The citrate transport protein of the inner mitochondrial membrane
- (C) IgG
- (D) Lysosomal α -fucosidase
- (E) Mitochondrial isocitrate dehydrogenase

8. Match the words (a–d) with the definitions (1–4):

- a) IgG
- b) protein
- c) glycoprotein
- d) membrane

- 1) the total nitrogenous material in plant or animal substances
- 2) a conjugated protein in which the nonprotein group is a carbohydrate
- 3) a thin soft sheet or layer especially of animal or plant origin
- 4) any of several classes of structurally related proteins that function as antibodies or receptors and are found in plasma and other body fluids and in the membrane of certain cells.

Unit 9

1. Read the key words and try to analyse them:

to abrade, assessment, to attach, to enhance, vasculature, direct cause.

2. Match a noun and an adjective corresponding to it:

- 1. permeability causative
- 2. experiment vascular
- 3. cause permeable
- 4. vessel abraded
- 5. abrasion cellular
- 6. cell experimental

3. Read the text A. What subject is it? (Histology, Biochemistry, Microbiology, Cytology) What is the answer?

A. During an experiment, an investigator gently abrades the skin from the flank of a mouse, creating a 1×2 cm skin window. A glass coverslip is then placed over the area so that cells attracted to the site attach to the coverslip for assessment. Two hours later, an extravasation of cells from the vasculature is noted on the coverslip. Which of the following complement components is the direct cause of the enhanced vascular permeability and chemoattraction in the abraded skin area in this experiment?

- (A) C1q
- (B) C4b
- (C) C5a
- (D) C7
- (E) C9

4. Match the words (a–d) with the definitions (1–4):

- a) glass coverslip
 - b) extravasate
 - c) permeable
 - d) flank
- 1) to pass by infiltration or effusion from a proper vessel or channel (such as a blood vessel) into surrounding tissue
 - 2) having pores or openings that permit liquids or gases to pass through
 - 3) the fleshy part of the side between the ribs and the hip
 - 4) a thin, round or square piece of glass used to cover an object mounted on a slide formicroscopic observation.

5. Fill in the blanks with the correct words

– Where; – Who; – What; – When

- 1) _____ does an investigator do during an experiment?
- 2) _____ performs an experiment?
- 3) _____ is a glass coverslip placed?
- 4) _____ was an extravasation of cells from the vasculature noted on the coverslip?

6. Mark the following statements as true (T) or false (F)

1. During an experiment, an investigator abrades a patient’s skin.
2. An investigator places a cover glass for cells assessment.
3. Extravasation of cells was noted two weeks later.
4. The experiment performed by an investigator didn’t show anything

7. Read the text B and underline the key words.

8. What subject is it? (Histology, Biochemistry, Neuroscience, Pathology, Microbiology, Cytology) What is the answer?

B. Drug X applied to a nerve axon decreases the duration of the action potential without affecting the resting potential or peak amplitude of the action potential. Which of the following is the most likely mechanism of action of Drug X?

- (A) Block of voltage-dependent Na⁺ permeability
- (B) Decrease in the rate of Na⁺ inactivation
- (C) Decrease in voltage-dependent Na⁺ permeability
- (D) Increase in the rate of voltage-dependent changes in K⁺ permeability
- (E) Inhibition of the Na⁺–K⁺ pump

9. Find the words from the text that correspond to the definitions:

- any of the filamentous bands of nervous tissue that connect parts of the nervous system with the other organs
- a usually long and single nerve-cell process that usually conducts impulses away from the cell body
- substance that affect living tissues and used as a medication or in the preparation of medication
- the time during which something exists or lasts

Unit 10

1. Make verbs and adjectives from the following nouns:

- discovery
- investigation
- presentation
- result
- division

2. Match the synonyms:

- inject assess
- evaluate eating
- engulfment introduce

3. Read the text A. What is the main idea of it?

- a) stabilization of peptide ligands by small molecules
- b) evaluation of T-lymphocyte activation after injection of bacterial strain
- c) proliferation and differentiation of T cells
- d) bacterial strain genotypes

4. Does this text refer to Histology, Biochemistry, Microbiology, Cytology?

A. An investigator injects an experimental animal with a newly discovered bacterial strain to evaluate T-lymphocyte activation. It is found that bacterial engulfment by macrophages results in the presentation of bacterial-derived peptide ligands to CD4+ T lymphocytes. Which of the following cell-surface molecules on the macrophage is most directly involved in the presentation of the processed peptides?

- (A) CD28
- (B) Class II MHC
- (C) Fcε receptor
- (D) Interleukin-2 (IL-2) receptor
- (E) Membrane immunoglobulin

5. Mark the following statements as true (T) or false (F)

- 1. Bacterial engulfment doesn't result in bacterial-derived peptide ligands to CD4+ T lymphocytes.
- 2. T-lymphocyte activation is to be evaluated by an investigator.
- 3. An experimental animal is injected with an unknown serum.
- 4. Bacterial growth results in the presentation of bacterial-derived peptide.

6. Choose where the words best fit in the blanks.

1. inject/result in
 - A. This disease may _____ many thousands of deaths.
 - B. Now lie back while we _____ you with the anesthetic.
2. bacteria/macrophages
 - A. Some _____ are harmful, but most serve a useful purpose.
 - B. _____ are a type of white blood cell that engulfs and digests cellular debris.

7. Read the text B and underline the key words.

8. What subject is it? (Histology, Biochemistry, Neuroscience, Pathology, Microbiology, Cytology) What is the answer?

B. During a study of gastric parietal cells, an investigator attempts to elicit maximum hydrochloric acid secretion from the stomach of an experimental animal. Which of the following combinations of substances is most likely to lead to this desired effect?

Acetylcholine Gastrin Histamine Secretin

- (A) Increased increased increased increased
- (B) Increased increased increased decreased
- (C) Increased decreased decreased increased
- (D) Decreased increased increased increased
- (E) Decreased decreased increased increased
- (F) Decreased decreased decreased decreased
- (G) Decreased decreased decreased decreased

9. Replace the underlined words by the words from the text.

1. The doctors make efforts to improve the condition of the patient.
2. The investigation uncovered some interesting information on Mr Parkinson.
3. Delayed diagnostics and poor efficacy of proposed modes of treatment may result in a disease.

Unit 11

1. Match the vocabulary with the correct definition.

- | | |
|--------------------|--|
| 1) diameter | a) A benign tumor derived from smooth muscle, occurring most often in the uterus. |
| 2) urinary bladder | b) Thickness or width. |
| 3) location | c) A place where something is or could be situated. |
| | d) An elastic, muscular sac situated in the anterior part of the pelvic cavity in which urine collects before excretion. |
| | e) To exert steady weight or force against. |

2. Match the words which have the same meaning.

- | | |
|--------------|---------------|
| 1) woman | a) result in |
| 2) cause | b) occurrence |
| 3) frequency | c) female |
| 4) location | d) possess |
| 5) have | e) position |

3. Read the text A. What structure does it deal with? The question is about:

- uterine discharge
- uterine bleeding
- uterine suture
- uterine neoplasm

Text A

A 45-year-old woman has a uterine leiomyoma that is 5 cm in diameter and is pressing on the urinary bladder, causing urinary frequency. Which of the following is the most likely location of the leiomyoma?

- (A) Cervical canal
- (B) Lateral margin of the uterine cavity
- (C) Subendometrially in the uterine cavity
- (D) Subperitoneally on the anterior surface of the uterine corpus
- (E) Subperitoneally on the posterior surface of the uterine fundus

4. Read the following statements and say whether they are true or false.

Correct the false ones.

1. A 45-year-old gravida is suffering from a uterine leiomyoma.
2. The neoplasm is less than 6 cm in diameter.
3. The leiomyoma causes urinary discomfort.
4. The patient does not complain of repeated urination.

SELF-STUDY WORK

5. Check your vocabulary. Match the synonyms.

- | | |
|---------------|--------------------|
| 1) abdominal | <i>a) sign</i> |
| 2) severe | <i>b) unit</i> |
| 3) department | <i>c) ventral</i> |
| 4) symptom | <i>d) widening</i> |
| 5) extension | <i>e) acute</i> |

6. Read the text B and find the correct answer.

Text B

A 5-year-old girl is brought to the emergency department because of fever and severe abdominal pain. Acute appendicitis is diagnosed. In the examination room, she keeps her right hip flexed and resists active extension of the hip. The inflamed structure associated with these symptoms is most likely in contact with which of the following structures?

- (A) Abdominal wall and the external oblique muscle
- (B) Obturator internus muscle
- (C) Psoas major muscle
- (D) Quadratus lumborum muscle
- (E) Transversus abdominis muscle

- 1) The patient was admitted to:
 - a) surgery
 - b) operating theatre
 - c) emergency care unit
 - d) chemist's
 - e) ENT department
- 2) The patient presented with:
 - a) constipation
 - b) scarlet fever
 - c) poisoning
 - d) stomachache
 - e) stroke
- 3) The diagnosis of ... was made.
 - a) appendiceal abscess
 - b) appendiceal lithiasis
 - c) inflammation of appendix
 - d) appendectomy
 - e) appendicoprostatitis

7. Guess which word of the following sequence is the odd one out.

- 1) physician, GP, MD, internist, doctor-in-charge
- 2) headache, sweating, fever, cramp, deafness
- 3) CT, MRI, PET, US, BP
- 4) abdomen, heart, esophagus, liver, kidneys
- 5) weight, pressure, episode, excessive, mass

8. Read the text C and make up 5 questions (general, special, alternative, disjunctive, Who-question)

Text C

A 61-year-old man comes to the physician because of a 3-month history of episodes of headache, heart palpitations, and excessive sweating. He has had a 10 kg (22 lb) weight loss during this period. While being examined, during an episode his blood pressure is 210/110 mm Hg. Physical examination shows no other abnormalities. Urine studies show increased catecholamine concentrations. A CT scan of the abdomen is most likely to show a mass in which of the following locations?

- (A) Adrenal glands
- (B) Appendix
- (C) Kidneys
- (D) Pancreas
- (E) Stomach

Unit 12

1. Supply the words to the following definitions:

- removal of waste material from the blood stream
- bedwetting, or inability to hold back urine
- nitrogenous substance excreted in the urine
- membranous tube through which urine is discharged from the urinary bladder
- condition of kidney stones

2. Read the Text A quickly and guess what it is about:

- GI tract disorder
- reproductive system disorder
- urinary system disorder
- cancer
- diagnostic techniques

Text A

A 6-year-old boy has a large intra-abdominal mass in the just above the symphysis pubis. During an operation, a cystic mass is found attached to the umbilicus and the apex of the bladder. Which of the following is the most likely diagnosis?

- (A) Hydrocele
- (B) Meckel cyst
- (C) Meckel diverticulum
- (D) Omphalocele
- (E) Urachal cyst

3. Complete the table.

Noun	Adjective
	abdominal
diagnosis	
	large
operation	
umbilicus	

4. Match the patients' descriptions of their symptoms (1-7) with the medical terms (a-g).

- | | |
|---|-----------------|
| a. I have to pee every half hour or so. | a) Dysuria |
| b. I get a scalding pain when I pass water. | b) Frequency |
| c. I have to get up several times to pass water at night. | c) Haematuria |
| d. I have to rush to go to the toilet. | d) Hesitancy |
| e. I have trouble getting started. | e) Nocturia |
| f. I can't hold my water. | f) Urgency |
| g. I passed some blood in my urine. | g) Incontinence |

SELF-STUDY WORK

Text B

A 55-year-old man who has alcoholic cirrhosis is brought to the emergency department because he has been vomiting blood for 2 hours. He has a 2-month history of abdominal distention, dilated veins over the anterior abdominal wall, and internal hemorrhoids. Which of the following veins is the most likely origin of the hematemesis?

- (A) Inferior mesenteric veins
- (B) Left gastric vein
- (C) Periumbilical veins
- (D) Superior rectal vein
- (E) Superior vena cava

5. Match the vocabulary with the correct definition.

1. Cirrhosis
 2. Vomiting
 3. Hemorrhoids
 4. Hematemesis
 5. Emergency
- a) forceful expulsion of the contents of one's stomach through the mouth and sometimes the nose
 - b) the acute care of patients who present without prior appointment; either by their own means or by that of an ambulance
 - c) a condition in which the liver does not function properly due to long-term damage
 - d) the vomiting of blood
 - e) known as "piles," these are distended blood vessels of the anus

6. Study the case presentation above (Text B) and fill in the table.

Age	
Sex	
Complaints	
Symptoms and Signs	
Past History	

Unit 13

1. Write a simple English phrase for each of the medical terms below your medical knowledge:

- hysterectomy
- menorrhagia
- salpingitis
- cervical biopsy

2. Complete the case report with appropriate words:

Shows, menstrual period, uterus, physician, vaginal discharge, test

Text A

A 19-year-old woman comes to the 1 _____ because of a 5-day history of increasingly severe right lower abdominal pain and bloody 2 _____. Her last 3 _____ was 8 weeks ago. Abdominal examination shows exquisite tenderness of the right lower quadrant. A serum pregnancy 4 _____ result is positive. Ultrasonography 5 _____ no gestational sac in the 6 _____. Which of the following is the most likely location of this patient's fertilized egg?

- (A) Cervix
- (B) Peritoneum of the right lower abdominal wall
- (C) Rectouterine pouch (of Douglas)
- (D) Right fallopian tube
- (E) Right ovary

A 19-year-old woman comes to the **physician** because of a 5-day history of increasingly severe right lower abdominal pain and bloody **vaginal discharge**. Her last **menstrual period** was 8 weeks ago. Abdominal examination shows exquisite tenderness of the right lower quadrant. A serum pregnancy **test** result is positive. Ultrasonography **shows** no gestational sac in the **uterus**. Which of the following is the most likely location of this patient's fertilized egg?

3. Make word combinations using a word from each column.

- | | |
|---------------|--------------------|
| 1) Because of | a) Pain |
| 2) Severe | b) Quadrant |
| 3) Fertilized | c) Egg |
| 4) Bloody | d) A 5-day history |
| 5) Upper | e) Discharge |

4. Make up a dialogue. A gynecologist is talking to a 19-year-old woman.

- 1) Are your periods regular?
- 2) How often do you get them?
- 3) How old were you when you started to get them?
- 4) When was your last period?
- 5) How long do the periods last usually?

- 6) Would you say they are light or heavy?
 - 7) Do you have clots?
 - 8) Do you get period pains?
 - 9) Is there any discharge between the periods?
 - 10) What color is it?
- a) Light.
 - b) A week ago.
 - c) Not really.
 - d) Every four weeks.
 - e) A little.
 - f) No.
 - g) Yes.
 - h) White
 - i) 4 or 5 days.
 - j) About 12.

SELF-STUDY WORK

5. Read the Text B and the Text C.

Text B

A 3-year-old girl with mild craniofacial dysmorphism has profound hearing deficits. Further evaluation indicates profound sensory auditory deficits and vestibular problems. Altered development of which of the following is most likely to account for these observations?

- (A) Ectodermal placode
- (B) Intermediate mesoderm
- (C) Lateral plate mesoderm
- (D) Neural crest cell
- (E) Paraxial mesoderm
- (F) Prochordal mesoderm

Text C

A 22-year-old man is brought to the emergency department because of a suprahyoid stab wound that extends from one side of the neck to the other. His tongue deviates to the right when protruded; there is no loss of sensory modality on the tongue. The injury most likely involves which of the following nerves?

- (A) Left hypoglossal
- (B) Left vagus
- (C) Right hypoglossal
- (D) Right glossopharyngeal
- (E) Right lingual

What structures or processes are the following adjectives associated with:

Craniofacial	Side
Auditory	Skin
Vestibular	Hearing
Ectodermal	Skull and face
Lateral	Axis
Neural	Vestibule
Paraxial	Nerves
Suprahyoid	Tongue
Hypoglossal	Submaxillary
Glossopharyngeal	Under the tongue
Lingual	Tongue and throat

6. Write a case presentation using 10 words and word combinations from the Text B and Text C:

- Mild
- Deficit
- Indicate
- Further evaluation
- Account for
- Be brought to
- Emergency department
- Loss
- Injury
- Involve

Unit 14

1. Match the words with the following definitions:

- 1) Adenocarcinoma
 - 2) Resection
 - 3) Radiotracer
 - 4) Adjacent
 - 5) Sentinel nodehypothetical first lymph node or group of nodes draining a cancer
- a) a radioactive marker used as a tracer
 - b) a malignant tumor riginating in glandular tissue
 - c) surgical removal of all or part f an organ, tissue, or structure
 - d) close to; lying near

2. Form adjectives adding the suffixes -ent , -ant and -ed.

Malignancy	
Dominance	
Difference	
Inheritance	
Importance	
Significance	
Independence	
Frequency	

3. Read the case presentation below (Text A)

A 45-year-old woman is found to have adenocarcinoma of the left breast. Resection of the tumor is scheduled, and the physician also plans to obtain samples of the draining nodes.

To find these nodes, a radiotracer is injected adjacent to the tumor and images are obtained. The first draining sentinel node in this patient is most likely found at which of the following locations?

- (A) Contralateral neck
- (B) Ipsilateral axilla
- (C) Ipsilateral mediastinum
- (D) Ipsilateral supraclavicle
- (E) Medial contralateral breast

What is the question about?

- Extirpation
- Decay
- Secretion
- Excitation
- Location

Age	
Sex	
Complaints	
Symptoms and Signs	
Past History	
Location	
Finding	
Diagnosis	

SELF-STUDY WORK

4. Read the Text B

A 3629 g (8 lb) male newborn is delivered at term. During the initial examination, urine is found to be leaking from the umbilicus. This patient most likely has an abnormality of which of the following fetal structures?

- (A) Umbilical arteries
- (B) Umbilical vein
- (C) Urachus
- (D) Urogenital sinus
- (E) Urorectal septum

What is the question about:

- Tuberculosis
- Surgical diagnosis
- Embryonic structure
- Hygiene
- Dysfunction

5. Read the Text C and fill in the table

A 70-year-old man has a 90% blockage at the origin of the inferior mesenteric artery. He does not have intestinal angina. Which of the following arteries is the most likely additional source of blood to the descending colon?

- (A) Left gastroepiploic
- (B) Middle colic
- (C) Sigmoid
- (D) Splenic
- (E) Superior rectal

Age	
Sex	
Complaints	
Symptoms and Signs	
Past History	
Location	
Finding	
Diagnosis	

Unit 15

1. Before you read the passage talk about the questions.

- What kind of patients are seen in the emergency room?
- What are some injuries that first aid can help?
- What are some common first aid techniques?
- What are some common diagnostic tests?

2. Match the words (1–6) with the definitions (A–F).

- 1) Knee a) a state of unusual sensitivity to touch or pressure

- 2) Collide b) any unexpected or unplanned event that may result in death, injury, property damage, or a combination of serious effects
- 3) Accident c) the area around the articulation of the femur and tibia
- 4) Twist d) to crash together with a violent impact
- 5) Tenderness e) a particular form of hurt, damage, or loss
- 6) Injury f) to wind around or together

3. Complete the case report (Text A) with appropriate words:

Displaced

Bear

Emergency department

Abnormal degree

Fell

Swelling

Physical examination

Text A

A 30-year-old man comes to 1 _____ 1 hour after injuring his left knee in a volleyball game. He says he twisted his left leg when he 2 _____ to the floor after he and a teammate accidentally collided. He cannot 3 _____ weight on his left leg. 4 _____ shows tenderness and 5 _____ of the left knee. When the patient sits on the edge of the examination table, the left knee can be 6 _____ anteriorly at an 7 _____. Which of the following is most likely injured in this patient?

- (A) Anterior cruciate ligament
- (B) Fibular collateral ligament
- (C) Meniscomfemoral ligament
- (D) Oblique popliteal ligament
- (E) Transverse ligament of the knee

4. What is the question about:

- Past history
- Physical examination
- Bone displacement
- Adverse reaction
- Injured structure

5. Study the case presentation above (Text A) and fill in the table.

Age	
Sex	
Complaints	
Symptoms and Signs	
Location	
Finding	
Examination	

SELF-STUDY WORK

6. Study the case presentation below (Text B):

Text B

A 70-year-old man is brought to the emergency department because of a 1-week history of increasingly severe left-sided lower abdominal pain and passing gas in his urine. His temperature is 38.9°C (102°F). A CT scan of the abdomen shows gas in the bladder and edema of the fat surrounding the sigmoid colon. There is no obvious lymph node enlargement. Which of the following is the most likely cause of this patient’s condition?

What is the question about:

- Location
- Infection
- Causative factor
- Contraindication
- Medical check-up

Study the case presentation above (Text B) and fill in the table.

Age	
Sex	
Complaints	
Symptoms and Signs	
Past History	
Location	
Treatment	
Finding	
Examination	
Diagnosis	

7. Fill in the blanks with the correct words from the word bank:

Urethra

Casts

Urine

Flow

Pass

- 1) The _____ indicated that the patient might have a kidney disease.
- 2) Urine passes through the _____ before leaving the body.
- 3) The doctor was concerned about the patient’s poor _____ of urine.
- 4) The lab needs a clean sample of _____ for accurate results.
- 5) Diana used painkillers to _____ the stones with minimal discomfort.

Навчальне видання

**МЕТОДИЧНІ ВКАЗІВКИ
З ПІДГОТОВКИ СТУДЕНТІВ-МЕДИКІВ
ДО СКЛАДАННЯ ІСПИТІВ З АНГЛІЙСЬКОЇ МОВИ**

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Свідоцтво про внесення суб'єкта видавничої справи до Державного реєстру видавництв, виготівників і розповсюджувачів видавничої продукції серії ДК № 3242 від 18.07.2008 р.