

A tracheostomy tube is used when the pharynx or larynx is obstructed. A small metal or plastic tube is inserted through a cut made in the trachea, and it acts as an artificial airway for ventilation.

Artificial respiration is made when a patient has temporarily lost the capacity to perform the normal motions of respiration.

## Control Tests. Respiratory System

1. This science studies the structure and shape of the body and organs.
  - A. Anatomy
  - B. Physiology
  - C. Biology
  - D. Botany
  - E. Pathology
2. The condition of physical, social and psychological well-being.
  - A. Genetics
  - B. Disease
  - C. Biochemistry
  - D. Embryology
  - E. Health
3. Disorder of the normal functioning of the human organism.
  - A. Happiness
  - B. Health
  - C. Disease
  - D. Fainting
  - E. Sadness
4. Structural and functional unit of the living organism is \_\_\_\_\_.
  - A. tissue
  - B. cell
  - C. organ
  - D. system of organs
  - E. body
5. \_\_\_\_ take part in respiration.
  - A. Kidneys
  - B. Bladders
  - C. Lungs
  - D. Limbs
  - E. Muscles
6. The organs of respiration are the \_\_\_\_\_.
  - A. pharynx, gullet and stomach
  - B. heart and blood vessels
  - C. liver and pancreas
  - D. spleen and its blood supply
  - E. larynx, bronchi and lungs
7. The larynx is formed by \_\_\_\_\_.
  - A. bones
  - B. ligaments
  - C. cartilages
  - D. membranes
  - E. joints
8. According to their structure the bronchi resemble \_\_\_\_\_.
  - A. the trachea
  - B. the heart
  - C. the liver
  - D. the stomach
  - E. the larynx
9. Bronchi have many divisions, so they form bronchial \_\_\_\_\_.
  - A. leaf
  - B. branch
  - C. bush
  - D. flower
  - E. tree
10. What is the voice organ?
  - A. Mouth
  - B. Nose
  - C. Ears
  - D. Larynx
  - E. Pharynx
11. With the help of what do we auscultate a person?
  - A. Ears

- B. Eyes
  - C. Phonendoscope
  - D. Stethoscope
  - E. Special tube
12. Rhinitis is the inflammation of \_\_\_\_.
- A. mouth
  - B. nose
  - C. liver
  - D. heart
  - E. ears
13. To do percussion we use our \_\_\_\_.
- A. toes
  - B. fingers
  - C. hands
  - D. arms
  - E. elbows
14. What organ helps in respiration?
- A. Heart
  - B. Liver
  - C. Stomach
  - D. Diaphragm
  - E. Head
15. What envelops the lung?
- A. An envelope
  - B. A sheet
  - C. A membrane
  - D. A pleura
  - E. A scarf
16. Where are the lungs situated?
- A. In the left part
  - B. In the right part
  - C. In the abdominal cavity
  - D. In the oral cavity
  - E. In the chest
17. What does the lung consist of?
- A. Lobes
  - B. Substances
  - C. Sacks
  - D. Boxes
  - E. Vessels
18. Where do pulmonary veins go?
- A. To the neck
  - B. To the heart
  - C. To the head
  - D. To the liver
  - E. To the lungs
19. What process takes place in the lungs?
- A. Exchange of gases
  - B. Nourishing
  - C. Production of hormones
  - D. Cell division
  - E. Grooving
20. What does the term "respiration" mean?
- A. To inhale
  - B. To exhale
  - C. To breathe
  - D. To inspire
  - E. All answers are right
21. What symptom is the most common in respiratory diseases?
- A. Fatigue
  - B. Headache
  - C. Heartache
  - D. Cough
  - E. Sleep
22. What membrane separates the thoracic cavity from the abdominal cavity?
- A. Septum
  - B. Diaphragm
  - C. Wall
  - D. Lungs
  - E. Stomach
23. How many lobes do the lungs have?
- A. 1
  - B. 2
  - C. 3
  - D. 4
  - E. 5
24. What does "ventilation of lungs" mean?
- A. Exchange of gases between air and blood



- B. Exchange of carbon dioxide  
C. Exchange of substances  
D. Exchange of gases in the lungs  
E. Removal of gases by blood
25. Where does the process of breathing begin?  
A. In the mouth  
B. In the eyes  
C. In the ears  
D. In the nose  
E. In the larynx
26. What term means the inflammation of the throat?  
A. Pharyngitis  
B. Rhinitis  
C. Laryngitis  
D. Gastritis  
E. Sore throat
27. You must use Mucaltine in dry cough. What medicinal plant is it produced from?  
A. Althea  
B. Valerian  
C. Lily of the valley  
D. Poppy  
E. Rose
28. In what medicinal form is Thermopsis used?  
A. Tincture  
B. Infusion  
C. Ointment  
D. Dragee  
E. Solution
29. What is bronchioles?  
A. Sacks  
B. Balloons  
C. Endings of bronchi  
D. Endings on bronchial tree  
E. All answers are right
30. How many bronchi are there in the body?  
A. 1  
B. 2  
C. 3  
D. 4  
E. 5
31. What is the main structural and functional unit of the lung?  
A. Sinus  
B. Cosinus  
C. Acinus  
D. Bronchus  
E. Alveolus
32. Pleuritis is \_\_\_\_\_.  
A. cough  
B. inflammation  
C. examination  
D. treatment  
E. pain
33. What does the term "pneumothorax" mean?  
A. Presence of air in the pleura  
B. Disease  
C. Pain in the chest  
D. Pneumonia  
E. Respiratory arrest
34. The largest portion of air which you can inhale and exhale is called \_\_\_\_\_.  
A. vital capacity  
B. breathing capacity  
C. inspiratory capacity  
D. respiratory capacity  
E. all answers are right
35. The protective respiratory reflexes are \_\_\_\_\_.  
A. high temperature  
B. running nose  
C. cilia  
D. cough and sneezing  
E. dyspnea
36. The most important method for examining respiratory organs.  
A. Auscultation  
B. Percussions  
C. Roentgenography

- D. Bronchoscopy  
E. Anamnesis
37. This dangerous infectious respiratory disease is a great problem today.  
A. Pneumonia  
B. Cancer of lungs  
C. Influenza  
D. Tuberculosis  
E. Emphysema
38. A children's disease which is characterized by repeated attacks of coughing is \_\_\_\_\_.  
A. whooping cough  
B. diphtheria  
C. scarlet fever  
D. mumps  
E. chicken pox
39. A suspension of colloidal particles in gas is \_\_\_\_\_.  
A. liquid  
B. aerosol  
C. water  
D. inhalator  
E. gas
40. What does the term "asphyxia" mean?  
A. Дыхання  
B. Задишка  
C. Задуха, ядуха  
D. Удар  
E. Напад
41. What is the Greek word for "lung"?  
A. Pulmo  
B. Bronchus  
C. Pneumon  
D. Cancer  
E. Liver
42. What is the normal respiratory rate?  
A. 60-70  
B. 16-20  
C. 120 over 80
- D. 100  
E. 40
43. What substance can't exchange in cough?  
A. Saliva  
B. Blood  
C. Sputum  
D. Urine  
E. Foreign bodies
44. What apparatus is used to measure the vital capacity?  
A. Bronchoscope  
B. Thermometer  
C. Barometer  
D. Tonometer  
E. Spirometer
45. What factor doesn't influence breathing?  
A. Experience  
B. Running  
C. Stress  
D. Depression  
E. Physical development of the organism
46. What is the best position for the patient with respiratory disease?  
A. To sit  
B. To stand  
C. To lie  
D. To walk  
E. To recline
47. What system of organs doesn't take part in the process of respiration?  
A. Respiratory  
B. Cardiovascular  
C. Nervous  
D. Lymphatic  
E. Digestive
48. The system of respiration includes: \_\_\_\_\_.  
A. the nasal cavity, larynx, trachea, bronchi, lungs and pleura  
B. only lungs



- C. bronchi and lungs with pleura  
D. larynx and trachea  
E. nose and mouth

49. What does the term "tussis" mean?  
A. Pain  
B. Cough  
C. Fatigue  
D. Condition

E. Sneezing

50. What term means "гортань"?  
A. Thorax  
B. Boxes  
C. Larynx  
D. Trachea  
E. Pharynx

## II. Grammar Exercises

### Exercise 1. Read and translate the information about the medicine "Ephact"

#### Ephact

(banish the symptoms of cold & allergy)

For quick & long-lasting relief in

- allergic rhinitis,
- sinusitis,
- common cold,
- nasal congestion,
- vasomotor rhinitis.

Unique microdialysis cell technology

Constant blood levels

Timed-release over 12 hours

#### Composition

Each capsule contains: phenyl propanolamine hydrochloride B.P. 50 mg (in timed-release form), chlorpheniramine maleate B.P. 8 mg (in timed-release form).

### Exercise 2. Name the parts of speech of the following words and translate them

Respiration, devotion, natural, artificial, important, importance, consumption, measurement, objection, objective, preparation, prevention.

### Exercise 3. Define the functions of the participle II in the following sentences. Translate the sentences into Ukrainian.

1. **Graduated** pipettes are **used** to measure different volumes. 2. The method **used** in our laboratory. 3. The **obtained** findings by our experiment were widely **applied** in our laboratory. 4. The findings **obtained** in our laboratory **confirmed** those **published** by our scientific society. 5. The bark **collected** in spring **preserved** its color. 6. The changes **observed** in the process of heating **caused** rapid decomposition. 7. The substances **compared** are divided into several groups.

### Exercise 4. Read and translate the sentences with participle complexes in the form of adverbials.

1. Using different methods chemists isolated and identified about six million substances.
2. While establishing impurities...



**Exercise 1. Read and learn the following words, pay attention to their Latin/Greek equivalents.**

| English                   | Latin/Greek                | Ukrainian            |
|---------------------------|----------------------------|----------------------|
| digestion [diˈdʒestʃn]    | digestiō/pepsis            | травлення            |
| oral cavity               | cavitas oris/stomato-      | ротова порожнина     |
| tooth (teeth)             | dens, dent/odont-          | зуб (зуби)           |
| tongue [tʌŋ]              | lingua                     | язик                 |
| esophagus [iːˈsɒfəgəs]    | oesophagus                 | стравохід            |
| stomach [sˈtʌmək]         | ventriculus/gastro-        | шлунок               |
| duodenum [ˌdjuːəʊˈdiːnəm] | duodenum                   | дванадцятипала кишка |
| small intestine           | intestinum tenue/entero-   | тонка кишка          |
| villus [ˈviləs]           | villus                     | ворсинка             |
| peritoneum [pəriˈtəniəm]  | peritoneum                 | очеревина            |
| large intestine           | intestinum crassum/col(on) | товста кишка         |
| cecum [ˈsiːkəm]           | caecum                     | сліпа кишка          |
| saliva [səˈlaivə]         | saliva                     | слина                |
| bile, gall                | bilis, fel/chole-          | жовч                 |
| liver                     | hepar, hepato-             | печінка              |
| gall bladder              | vesica biliaris            | жовчний міхур        |
| pancreas [ˈpæŋkriːəs]     | pancreas                   | підшлункова залоза   |
| enzyme [ˈenzaim]          | enzymum                    | фермент              |
| anus [ˈeɪnəs]             | canalis analis             | анус, анальний отвір |
| rectum                    | rectum/procto-             | пряма кишка          |

**Exercise 2. Learn the following word combinations.**

taste receptors – рецептори смаку  
 mucous membrane – слизова оболонка  
 gastric juice – шлунковий сік  
 papillae of the tongue – сосочки язика  
 alimentary tract – травний канал

**Exercise 3. Read and translate the following sentences.**

1. The liver consists of small lobules connected together by the connective tissue, different vessels and nerves. 2. That portion of the alimentary tract which forms the large intestine consists of the cecum, colon and rectum. 3. The duodenum is called so because its length measures about the length of twelve fingers. 4. The liver consisting of lobes is covered with a fibrous coat.

**Exercise 4. Match the adjectives with the nouns. Translate your word combinations.**

inner, serous, salivary, hard, exact (точний), vital, face, connective, pale, length, palate, coat, capacity, gland, layer.

**Exercise 5. Choose the correct answer to the question.**

*What are the two main functions of the digestive system?*

a) The organs of the digestive system break the taken food into the smallest particles and supply body cells with nutrients to provide energy.



- b) They are inhalation and exhalation.  
 c) They are digestion (the process of braking food into small particles to pass them through the walls of cells) and absorption (the transferring of food into the circulation).

**Exercise 6. Read the texts, translate them.**

### *Alimentary Tract*

The alimentary tract is a musculomembraneous canal about 8.5 m in length. It extends from the oral cavity to the anus. It consists of the mouth, pharynx, esophagus, stomach, small intestine, and large intestine. The liver with gall bladder and pancreas are the large glands of the alimentary tract.

The first division of the alimentary tract is formed by the mouth. Important structures of the mouth are the teeth and the tongue, which is the organ of taste. The soft and hard palates and the salivary glands are also in the oral cavity.

From the mouth food passes through the pharynx to the esophagus and then to the stomach.

The stomach is a dilated portion of the alimentary canal. It is in the upper part of the abdomen under the diaphragm. It measures about 21–25 cm in length, 8–9 cm in its greatest diameter. It has a capacity from 2.14 to 4.28 l.

The small intestine is a thin-walled muscular tube about 6.5 meters long. It is located in the lower and central portions of the abdominal and pelvic cavities. The small intestine is composed of the duodenum, jejunum, and ileum. The large intestine is about 1.5 m long. It is divided into cecum, colon and rectum.

### *Accessory Organs*

The liver is the largest gland in the human body. It is in the right upper part of the abdominal cavity under the diaphragm. So, the liver is on the right side of the abdomen. The weight of the liver is 1500 g.

The gall bladder is a hollow sac lying on the lower surface of the liver.

The pancreas is a long thin gland lying under and behind the stomach on the left side.

**Exercise 7. Look at Fig. 17–1. Name all the organs of the digestive system from the oral cavity to the anus.**

**Exercise 8. Say what organ is spoken about.**

a) This organ is the largest gland in the human body. It is in the upper part of the abdominal cavity under the diaphragm in the right part of the abdomen. Its upper surface is convex. This organ consists of small lobules connected together by the connective tissue, different vessels and nerves.

b) This organ is pyriform (грушевидный) in shape. It is a dilated portion of the alimentary canal. It is in the upper part of the abdomen under the diaphragm. The liver is above this organ, and the colon is below it. The pancreas is behind this organ.

Fig. 17–1. The digestive system.



## UNIT EIGHTEEN

|     |                  |                            |
|-----|------------------|----------------------------|
| I   | Speaking         | Digestive System Disorders |
| II  | Grammar          | Gerund Usage (§107)        |
| III | Independent Work | How to Go on a Diet?       |

## I. Speaking: Digestive System Disorders

*After careful study of this unit you should be able to:*

- list all stomach disorders and their symptoms;
- describe what happens during formation of peptic ulcer;
- name the symptoms of stomach cancer;
- list intestinal disorders.

**Exercise 1. Learn the following words by heart, pay attention to their Latin/Greek equivalents.**

| English                            | Latin/Greek       | Ukrainian                                     |
|------------------------------------|-------------------|---|
| condition                          | status, conditio  | стан  |
| dyspepsia [dis'pepsiə]             | dyspepsia         | порушення травлення                           |
| gallstones                         | cholecystolithus  | жовчокам'яна хвороба                          |
| catarrh [kə'tɑ:]                   | catarrhus         | катар, запалення слизової оболонки            |
| cirrhosis [si'rəʊsis] of the liver | cirrhosis hepatis | цироз печінки                                 |
| peritonitis [,peritə'naitis]       | peritonitis       | запалення оболонки очеревини, перитоніт       |
| ulcer ['ʌlsə]                      | ulcus             | виразка                                       |
| gastritis                          | gastritis         | запалення шлунку, гастрит                     |
| duodenitis                         | duodenitis        | запалення дванадцятипалої кишки               |
| hepatitis                          | hepatitis         | запалення печінки, гепатит                    |
| pancreatitis                       | pancreatitis      | запалення підшлункової залози, панкреатит     |
| colitis                            | colitis           | запалення товстого кишечника, коліт           |
| appendicitis                       | appendicitis      | запалення червоподібного відростка, апендицит |
| overdosage                         | hyperdosis        | передозування                                 |
| diarrhea [,daɪə'riə]               | diarrhoea         | пронос  |
| nausea ['nɔ:sjə]                   | nausea            | нудота  |
| vomiting                           | vomit             | блювання                                      |
| flatus ['flætəs]                   | flatus            | скопичення газів                              |
| hemorrhoids                        | haemorrhoides     | геморой                                       |
| hernia ['hɜ:niə]                   | hernia            | грижа, кіла                                   |



**Exercise 2. Read the text.**

In the cardiological department one can see patients with heart diseases. They suffer from myocarditis, pericarditis, cardiosclerosis, etc. They have heart troubles, breathlessness, weakness and other symptoms.

In the pulmonological department there are patients with lung diseases. They suffer from pneumonia, bronchitis, asthma, etc. They complain of their bad cough, high temperature, headache.

In the gastroenterological department you can find patients with abdominal diseases. They have gastritis, colitis, ulcer, etc. They feel pain in their stomachs, weakness and sometimes they have vomiting or nausea. Many patients are recovering. Some of them are all right. But some patients are in a bad condition. Doctors pay much attention to the patients. They use different methods of treatment. Many patients are discharged from the hospital every day.

**Exercise 3. Answer the following questions.**

1. What patients can one see in the cardiological department?
2. What diseases do they suffer from?
3. What lung diseases do patients suffer from?
4. Are many patients recovering?
5. What methods of treatment do doctors use?

**Exercise 4. Add missing parts to the word *gastr(o)* using Greek term elements.**

|           |  |
|-----------|--|
| Gastr...  | - surgical removal of all or some part of the stomach              |
| Gastro... | - an instrument for visual inspection of the inside of the stomach |
|           | - a bleeding from the stomach lining                               |
|           | - inflammation of the stomach lining                               |
|           | - dislocation of the stomach down                                  |

(-itis; -ectomy; -ptosis; -rrhagia; -scope)

**Exercise 5. You are a gastroenterologist and you're consulting a patient (make up a dialog with your friend). Use the following word combinations:**

- to be sick – почувати нудоту (англ.); бути хворим (амер.);
- to be X-rayed – пройти рентген;
- to follow doctor's orders – виконувати вказівки лікаря;
- to keep (stay) in bed – дотримуватися постільного режиму;
- you don't look well – у вас поганий вигляд;
- to be operated upon – бути прооперованим;
- to be feverish – лихоманити;
- I feel faint. – Мені погано.
- My head swings. – У мене крутиться голова.
- Your tongue is rather coated (is not clean). – У вас наліт на язиці.
- Lie down on you back (stomach). – Ляжте на спину (живіт).
- Do you have a good (poor) appetite? – Ви маєте добрий (поганий) апетит?
- Do you have vomiting (heartburn)? – У вас блювання (печія)?
- Is the vomit bloodstained (with mucus, unfrequent, violent)? – Блювота з кров'ю (зі слизом, нечаста, сильна)?

- Of what color is the vomit? – Якого кольору блювота?
- Is your tongue always pink? – Ваш язик завжди рожевий?
- Is there any pain in your abdomen? – У вас болює живіт?
- Do you suffer from indigestion (gastric or duodenal ulcer)? – У Вас розлад травлення (виразка шлунка чи дванадцятипалої кишки)?
- Is the gastric pain relieved by taking food or soda? – Чим заспокоюєте біль – їжею чи содовою водою?
- The liver, spleen, gall bladder are not palpable. – Печінка, селезінка, жовчний міхур не промацуються.

### Exercise 6. Translate the following sentences.

1. Ці пацієнти страждають на виразку шлунка. Вони відчують біль у шлунку, загальну слабкість. У них буває нудота або блювання. 2. У цього чоловіка часто буває пронос, він відчуває біль у шлунку після їжі. 3. Ця пацієнтка у поганому стані. У неї висока температура, блювання і сильно болює голова. 4. Ці пацієнти одужують. Скоро їх випишуть із лікарні.

### Exercise 7. Read, translate the text and make up a plan on it.

#### Ulcers

An ulcer (peptic ulcer) is a sore or a crater in the lining of the gastrointestinal tract. Ulcers may develop in the stomach (gastric ulcers) or in the upper part of the small intestine (duodenal ulcers). Ulcers develop when something damages the protective lining and allows stomach acid to eat away at it. Factors that increase the risk of ulcers include:

- regular use of aspirin, ibuprofen, and other nonsteroidal anti-inflammatory drugs (NSAIDs), such as indomethacin, naproxen, clinoril, etc.;
- smoking;
- infection with the bacteria called *Helicobacter pylori*.

Symptoms of an ulcer may include a burning or sharp pain in the abdomen between the navel and the end of the breastbone. The pain often occurs between meals and may wake the person during the night. The pain can usually be relieved by eating something or taking an antacid. Ulcers may also cause heartburn, nausea or vomiting, and a bloated or full feeling during or after meals.

Ulcers can cause bleeding in the stomach, which may produce black or tarry bowel movements. Without treatment, ulcers may occasionally cause obstruction or break through (perforate) the stomach lining.

Bleeding and perforation are serious situations that require immediate treatment.

#### Home Treatment

- Avoid foods that seem to bring on symptoms. It isn't necessary to eliminate any particular food from your diet (although milk and milk products slow healing and should be avoided).
- Eliminate alcohol, caffeine, and spicy foods if they seem to worsen symptoms.
- Try eating smaller, more frequent meals. If it doesn't help, return to a regular diet.
- Stop smoking. People who smoke are twice as likely to develop ulcers as nonsmokers.



- Do not take aspirin or ibuprofen. Try acetaminophen instead.
  - Antacids are usually needed to neutralize stomach acid and allow the ulcer to heal.
- Talk with your doctor about the best dose. You may need frequent large doses to do the job. Nonabsorbable antacids like Maalox, Mylanta, and Gelusil are often best. If you are on a low-salt diet, talk with your doctor or pharmacist before choosing an antacid. Some antacids have a high sodium content.
- Too much stress may slow ulcer healing.

**Exercise 8. Here is a list of different disorders of the organs of the digestive system. Read the information, compare English words with their Greek equivalents.**

1. Peritonitis is the peritoneal inflammation.
2. Caries, gingivitis and periodontitis are diseases of the oral cavity.
3. Pharyngitis is the inflammation of the pharynx.
4. Gastritis, ulcer and cancer are diseases of the stomach.
5. Enteritis, diarrhea, appendicitis, and cancer are disorders of the intestines.
6. Diseases of the liver are hepatitis, cirrhosis, and cancer.
7. Pancreatitis is the inflammation of the pancreas.
8. Gallstones (or cholelithiasis) and cholecystitis are disorders of the gall bladder.

**Exercise 9. Answer the following questions.**

- 1) What symptoms of digestive disorders can you name?
- 2) What diseases of the stomach do you know?
- 3) Will you describe peptic ulcer?
- 4) What factors increase the risk of ulcer?
- 5) What may ulcer cause?
- 6) What can you advise to a patient suffering from ulcer?
- 7) What diseases of the accessory organs do you know?

## Control Tests. Digestive System

1. What function does the process of digestion fulfill?
  - A. Sexual
  - B. Metabolism
  - C. Supportive
  - D. Protective
  - E. Immune
2. What processing does food undergo in the oral cavity?
  - A. Mechanical
  - B. Mechanical and particularly chemical
  - C. Only chemical
  - D. Particularly chemical
  - E. Particularly mechanical
3. Where does food get in at first?
  - A. The large intestine
  - B. The small intestine
  - C. The oral cavity
  - D. The duodenum
  - E. The gullet
4. With the help of what is food cut in the mouth?
  - A. Teeth
  - B. Tongue
  - C. Gums
  - D. Palate
  - E. Cheeks
5. What happens between the stomach and the small intestine?
  - A. ...
  - B. ...
  - C. ...
  - D. ...
  - E. ...
6. With the help of what is food cut in the mouth?
  - A. ...
  - B. ...
  - C. ...
  - D. ...
  - E. ...
7. What happens between the stomach and the small intestine?
  - A. ...
  - B. ...
  - C. ...
  - D. ...
  - E. ...
8. What happens between the stomach and the small intestine?
  - A. ...
  - B. ...
  - C. ...
  - D. ...
  - E. ...
9. What happens between the stomach and the small intestine?
  - A. ...
  - B. ...
  - C. ...
  - D. ...
  - E. ...
10. What happens between the stomach and the small intestine?
  - A. ...
  - B. ...
  - C. ...
  - D. ...
  - E. ...

5. Where does food go from the oral cavity?
  - A. Esophagus
  - B. Stomach
  - C. Gullet
  - D. Pharynx
  - E. Larynx
6. With the help of what is food segregated in the stomach?
  - A. Stomach juice and enzymes
  - B. Saliva and stomach juice
  - C. Enzymes and gall
  - D. Stomach juice and water
  - E. Water and enzymes
7. What is there between the pharynx and stomach in the digestive tract?
  - A. Liver
  - B. Duodenum
  - C. Heart
  - D. Ribs
  - E. Gullet
8. Where are fats split?
  - A. In the stomach
  - B. In the rectum
  - C. In the anal canal
  - D. In the gall bladder
  - E. In the duodenum
9. What organ also takes part in digestion?
  - A. Kidney
  - B. Heart
  - C. Brain
  - D. Liver
  - E. Lung
10. What part of the digestive tract is there between the gullet and duodenum?
  - A. Stomach
  - B. Large intestine
  - C. Small intestine
  - D. Pancreas
  - E. Liver
11. What kind of juice takes part in digestion?
  - A. Fruit
  - B. Gastric
  - C. Orange
  - D. Apple
  - E. Sweet
12. Through it fecal masses go out the body.
  - A. Stomach
  - B. Lungs
  - C. Rectum
  - D. Anus
  - E. Liver
13. What does *gastritis* mean?
  - A. Ulcer of the stomach
  - B. Cancer of the stomach
  - C. Catarrh of the stomach
  - D. Spasm of the stomach
  - E. Emptying of the stomach
14. Through it food gets into the stomach.
  - A. Liver
  - B. Esophagus
  - C. Duodenum
  - D. Rectum
  - E. Pancreas
15. What does *dyspepsia* mean?
  - A. Narcosis
  - B. Fracture
  - C. Pregnancy
  - D. Difficulty in digestion
  - E. Lack of vitamins
16. What substances are absorbed in the large intestine?
  - A. Sugar and salts
  - B. Gall and lymph
  - C. Water and salts
  - D. Blood and water
  - E. Water and sugar
17. What is a part of large intestine?
  - A. Duodenum



- B. Liver  
C. Kidney  
D. Colon  
E. Bladder
18. It doesn't belong to the digestive system.  
A. Heart  
B. Gullet  
C. Liver  
D. Pancreas  
E. Stomach
19. What is the synonym to the word "esophagus"?  
A. Bronchus  
B. Ventricle  
C. Gullet  
D. Gall bladder  
E. Bladder
20. What organ of digestion can we palpate?  
A. Duodenum  
B. Liver  
C. Small intestine  
D. Large intestine  
E. Pharynx
21. What does the liver secrete?  
A. Blood  
B. Hormones  
C. Cells  
D. Bile  
E. Urine
22. Where does food go after the duodenum?  
A. Into the stomach  
B. Into the small intestine  
C. Into the blood vessels  
D. Into the rectum  
E. Into the gullet
23. Where are fecal masses formed?  
A. In the kidneys  
B. In the bladder  
C. In the appendix  
D. In the rectum  
E. In the large intestine
24. What is the role of teeth in the oral cavity?  
A. To chew food  
B. To drink water  
C. To speak english  
D. To keep food in the mouth  
E. To do exercises
25. What is the function of digestion?  
A. Nutrition  
B. Exchange of substances  
C. Immunity  
D. Defense  
E. Supporting
26. What disease doesn't belong to gastric diseases?  
A. Ulcer  
B. Gastritis  
C. Catarrh  
D. Gallstones  
E. Cancer of the stomach
27. Mouth, pharynx, gullet, \_\_\_\_, duodenum, small intestine, large intestine, rectum and anal canal form the system of digestion.  
a. liver  
b. bladder  
c. kidneys  
d. lungs  
e. stomach
28. What substances help to segregate food in the stomach?  
A. Salts  
B. Acids  
C. Enzymes  
D. Urea  
E. Hormones

29. What doctor system?

- A. Urolog  
B. Neurol  
C. Stoma  
D. Gastro  
E. Cardiol

30. If you want

- A. hungry  
B. sad  
C. thirsty  
D. happy  
E. sick

31. What is the "oesophagus"?

- A. Heart  
B. Trunk  
C. Chest  
D. Abdomen  
E. Gullet

32. The root of the tongue is

- A. palatopharyngeal  
B. hypopharyngeal  
C. palatoglossal  
D. lingual  
E. tonsillar

33. The large intestine is

- A. Torus  
B. Paracolic  
C. Thoracic  
D. Lingual  
E. Thoracic

34. Removal of

- A. Cholesterol  
B. Gallstones  
C. Esophagus  
D. Pharynx  
E. Esophagus

29. What doctor treats diseases of the digestive system?

- A. Urologist
- B. Neurologist
- C. Stomatologist
- D. Gastroenterologist
- E. Cardiologist

30. If you want to eat, you are \_\_\_\_.

- A. hungry
- B. sad
- C. thirsty
- D. happy
- E. sick

31. What is the English for the Latin term "oesophagus"?

- A. Heart
- B. Trunk
- C. Chest
- D. Abdomen
- E. Gullet

32. The roof in the mouth is \_\_\_\_.

- A. palace
- B. house
- C. palate
- D. ceiling
- E. tongue

33. The largest glandular organ which secretes bile.

- A. Tonsil
- B. Pancreas
- C. Thyroid
- D. Liver
- E. Thymus

34. Removal of the gall bladder.

- A. Cholecystectomy
- B. Gastrectomy
- C. Esophagotomy
- D. Pharyngotomy
- E. Enterotomy

35. Examination of the stomach and duodenum with the help of an instrument.

- A. Rectoromanoscopy
- B. Gastroenteroscopy
- C. Bronchoscopy
- D. Ophthalmoscopy
- E. Nephroscopy

36. What is the English for "виразка"?

- A. Fetus
- B. Ulcer
- C. Wound
- D. Abscess
- E. Necrosis

37. Inflammation of the large intestine.

- A. Cystitis
- B. Enteritis
- C. Colitis
- D. Proctitis
- E. Pharyngitis

38. Where is the stomach situated?

- A. In the thoracic cavity
- B. In the head
- C. On the left side
- D. On the right side
- E. In the abdominal cavity

39. What is the organ of taste?

- A. Mouth
- B. Nose
- C. Skin
- D. Tongue
- E. Eye

40. How many teeth does an adult person have?

- A. 20
- B. 28
- C. 32
- D. 36
- E. 24

41. What shape is the stomach?

- A. Pyriform



- B. Ball  
C. Balloon  
D. Tube  
E. Tree
42. The inflammation of the mucous membrane of the stomach.  
A. Duodenitis  
B. Colitis  
C. Enteritis  
D. Hepatitis  
E. Gastritis
43. The inflammation of the liver.  
A. Cholecystitis  
B. Hepatitis  
C. Duodenitis  
D. Pharyngitis  
E. Rhinitis
44. What does the act of defecation mean?  
A. Evacuation  
B. Supply  
C. Absorption  
D. Segregation  
E. Exhalation
45. The tiny hair in the small intestine is called a \_\_\_\_\_.  
A. bacillus  
B. egg  
C. horn  
D. villus  
E. stick
46. The process of filling cells with energy.  
A. Nutrition  
B. Micturition  
C. Digestion  
D. Production  
E. Excretion
47. What does exchange of substances in the organism mean?  
A. Catabolism  
B. Botulism  
C. Metabolism  
D. Assimilation  
E. Dissimilation
48. The lack of vitamin D causes \_\_\_\_\_.  
A. scurvy  
B. flu  
C. pneumonia  
D. rachitis  
E. mumps
49. The lack of vitamin C causes this disease.  
A. scurvy  
B. flu  
C. influenza  
D. pneumonia  
E. dysentery
50. Special food for patients.  
A. Vegetables  
B. Fruit  
C. Meat  
D. Fish  
E. Diet

## II. Grammar Exercises

**Exercise 1. State the part of speech of the following words and translate them.**

- a) Anatomist, biologist, clinician, hygienist, physician, gynecologist, pediatrician, psychiatrist, naturalist.  
b) Administration, investigation, contribution, foundation, addition, suggestion, development, improvement.  
c) Clinical, educational, scientific, centrifugal, remarkable, inorganic, valuable, topographical.

| English                    | Latin/Greek            | Ukrainian                           |
|----------------------------|------------------------|-------------------------------------|
| afferent nerve fibers      | neurofibrae afferentes | чутливі (аферентні) нервові волокна |
| efferent nerve fibers      | neurofibrae efferentes | рухові (еферентні) нервові волокна  |
| axon ['æksən]              | axon                   | аксон                               |
| ganglion ['gæŋliən]        | ganglion               | ганглії, вузол                      |
| impulse ['impʌls]          | impulsus               | імпульс                             |
| neurotransmitter           |                        | нейротрансмітер, нейромедіатор      |
| plexus ['pleksəs]          | plexus                 | сплетіння                           |
| receptor [re'septə]        | receptor               | рецептор                            |
| dendrites ['dendraits]     | dendriti               | дендрити                            |
| myelin ['maiəlin]          | myelinus               | мієлін                              |
| neurilemma [ˌnju:əri'lemə] |                        | неврилема                           |
| brain [breɪn]              | cerebrum/encephalon    | головний мозок                      |
| spinal cord ['spainl'kɔ:d] | medulla spinalis       | спинний мозок                       |

### Exercise 2. Read and learn the following word combinations and their meaning.

**spinal cord** – спинний мозок (стрижень)

**meninx** ['meniŋks] (pl. meninges [me'nindʒi:z]) – оболонка мозку

**myelin sheath** ['ʃi:ð] мієлінова оболонка

**neurilemma** – шваннівська оболонка (оболонка нервових волокон)

**synapse** – синапс (спеціалізовані утвори функціонального зв'язку нейронів один з одним або з клітиною, яку вони іннервують; служать для сприйняття і передачі нервових імпульсів)

**stimulus** ['stimjʊləs] подразник

**white matter** – біла речовина (шляхи і канатики)

**gray matter** – сіра речовина (ядра і стовпи)

**sensory neurons** – сенсорні нейрони (чутливі)

**motor neurons** – моторні нейрони (рухові)

### Exercise 3. Read and translate the text.

#### *Nervous System*

##### *(Part I)*

None of the body systems is functioning alone. The body systems work together as one unit and the nervous system serves as a chief coordinating center. The nervous system has been compared to a telephone exchange, in that the brain and the spinal cord act as switching centers, and the nerve trunks act as cables for carrying messages to and from these centers.

The nervous system structurally is divided into the central nervous system (CNS), which includes the brain, the spinal cord, and the peripheral nervous system (PNS), which includes all of the cranial and spinal nerves (Fig. 19-1).

Functional divisions of the nervous system include the somatic (voluntary) nervous system, which supplies skeletal muscles, and the visceral (involuntary) nervous system, which supplies smooth muscles, cardiac muscles, glands.



The nerve cell is called a neuron (Fig. 19-2). It consists of a cell body with a nucleus and nerve fibers, which are thread-like projections of the cytoplasm. Nerve fibers are of two kinds: dendrites, which conduct impulses to the cell body, and axons, which conduct impulses away from the cell body.

The job of neurons of the peripheral nervous system is to relay information to or from the central nervous system. Neurons that conduct impulses to the CNS are sensory, or afferent, neurons. Those cells that carry impulses from the CNS out to muscles and glands are motor, or efferent, neurons. The organ activated by the motor neuron is the effector.

Nerve impulse is electric current that spreads along the nerve fiber.

Synapse is the junction between neurons where a nerve impulse is transmitted from one neuron to the next.

A nerve is a bundle of nerve fibers located outside the CNS. Bundles of nerve fibers within the CNS are tracts.

The nerves are sensory (afferent), they contain only fibers that carry impulses toward the CNS (from the receptor); motor (efferent), they contain only fibers that carry impulses away from the CNS (from the receptor); mixed, they contain both motor and sensory fibers.

Reflex is a simple, rapid, automatic response involving few neurons.

#### **Exercise 4. Make up a plan of the text.**

#### **Exercise 5. Define the following terms.**

Neuron, nerves, tracts, reflex, synapse, axon, dendrite, effector.

#### **Exercise 6. Find English equivalents in the text.**

Подають імпульси до клітини тіла, електрохвиля, з'єднання між нейронами, як єдине ціле, центральна нервова система, головний мозок, вольова нервова система, нервові волокна і пучки, кабель для передачі повідомлень, робота нейронів, що несуть імпульси до ЦНС, від рецепторів.

#### **Exercise 7. Answer the following questions.**

- 1) What is the main function of the nervous system?
- 2) What are two main structural divisions of the nervous system?
- 3) What is the nerve impulse?
- 4) What is synapse?
- 5) Do axons or dendrites conduct impulses away from the cell body?

#### **Exercise 8. Translate into Ukrainian.**

1. Scientists consider that there are up to 12 billion nerve cells which are performing their function of coordination of human activities all over the body.
2. Thanks to the nervous system which controls the activities of the body we can see, think, speak, hear, touch, feel, etc.
3. External and internal receptors receive and transmit nervous impulses to the nerve cells and then to the spinal cord and brain.