

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ

Центр тестування професійної компетентності фахівців з вищою освітою
напрямів підготовки “Медицина” і “Фармація” при
Міністерстві охорони здоров'я України

Код ID							
3	8	2	1	1	3	8	8

Прізвище							
П	і	р	і	є	в	а	

Варіант 04

**Збірник тестових завдань для складання тестового
компоненту етапу 1 ЄДКІ**

Спеціальність “МЕДИЦИНА”

**ІСПИТ З ІНОЗЕМНОЇ МОВИ
ПРОФЕСІЙНОГО СПРЯМУВАННЯ
(англійська)**



1. Muscle relaxant tubocurarine was administered during a surgery. After the surgery the patient's breathing is not restored. What antidote should he be given to restore his breathing?
- Atropine sulfate
 - Bemegride
 - Clophelin (Clonidine)
 - Proserin (Neostigmine)
 - Anaprilin (Propranolol)
2. A 46-year-old man complains of tiredness and pain in the joints of his fingers and wrists. These signs are observed for the last 2 months. The pain is present in both hands and the wrists are swollen. Furthermore, he describes morning stiffness in his joints, lasting about 2 hours, which improves with use. His past medical history reveals that he was successfully treated for *H. pylori*-related ulcer last year. He denies smoking and stopped drinking when his GI symptoms started. What drug is the best choice for his joint pain management?
- Prednisolone
 - Celecoxib
 - Aspirin
 - Morphine
 - Paracetamol
3. There is a system that maintains the balanced state of multicellular organisms. Its main functions are to ensure an adequate physiological response and to defend the body against infectious agents and other unintended invasions. What system has such functions?
- Nervous system
 - Immune system
 - Homeostatic system
 - Endocrine system
 - Lymphatic system
4. A 25-year-old man came to the family doctor complaining of the loss of taste sensation in the front two-thirds of his tongue. The doctor determined that this condition was caused by the damage to a certain nerve. What nerve is likely to be functionally impaired in this case?
- Vagus
 - Hypoglossal nerve
 - Chorda tympani
 - Accessory nerve
 - Glossopharyngeal nerve
5. Histological microslide shows an organ consisting of gray and white matter. The gray matter is located in the center and is made up of bundle neurons (*neurocytus funicularis*), radicular neurons (*neurocytus radiculatus*), and interneurons. Such morphology is characteristic of the following organ:
- Cerebral hemispheres
 - Cerebellum
 - Medulla oblongata
 - Spinal cord
 - Spinal ganglion
6. General practitioner performs a physical examination of the patient. In the course of the examination it is necessary to measure the palpable regular expansion of a superficial artery caused by the ejection of blood into the vessels through heart contractions. What sign does the doctor measure?
- Blood pressure
 - Saturation
 - Pulse
 - Heart electricity
 - Heartbeat
7. The heart is a muscular organ that pumps blood through the body. This function is carried out by valves, muscles, and vessels. What valve is located between the left ventricle and left atrium?
- Bicuspid
 - Aortic
 - Pulmonary
 - Non-return
 - Tricuspid
8. A 28-year-old man complains of nausea, vomiting, and right-sided subcostal pain. Objectively, his skin and sclerae are icteric, he has elevated body temperature, enlarged liver, dark urine, fecal hypocholia, hyperbilirubinemia (direct and indirect bilirubin), bilirubinuria, urobilinuria, hypoproteinemia, and decreased blood coagulability. What condition can be characterized by these changes?
- Pre-hepatic hemolytic jaundice
 - Post-hepatic jaundice
 - Hepatocellular parenchymal jaundice
 - Acute cholecystitis
 - Acute pancreatitis
9. Medical examination in an army recruitment center detected a 15-year-old boy with tall stature, eunuchoid body proportions, gynecomastia, and female pattern of pubic hair growth. The boy

has fat deposits on the thighs, no facial hair growth, high-pitched voice, and below average IQ. He was diagnosed with Klinefelter syndrome. What karyotype corresponds with this disease?

- A. 47, XY,+18
- B. 45, X0
- C. 47, XYY
- D. 47, XXY
- E. 46, XY

10. A 34-year-old man visits his dentist complaining of a toothache. After a dental procedure that involved extraction of several teeth, he developed a severe bleeding lasting more than 15 minutes. He has a history of chronic hepatitis C. What is the most likely cause of the prolonged bleeding in this patient?

- A. Hypofibrinogenemia
- B. Thrombocytopenia
- C. Hypoalbuminemia
- D. Hypocalcemia
- E. -

11. A molecular biologist studies various molecules. One of them is a polymeric molecule essential in various biological roles in coding, decoding, regulation, and expression of genes. It is a helical single-stranded molecule folded onto itself. Which of the following molecules is being studied?

- A. ATP
- B. RNA
- C. DNA
- D. HLA
- E. ADP

12. The main functions of neural tissue can be described as communication and integration. What is the basic unit of neural tissue that ensures its functioning?

- A. Dendrite
- B. Neuron
- C. Myelin sheath
- D. Nucleus
- E. Axon

13. A 45-year-old woman came to her physician with complaints of extreme tiredness and weakness. She says that these symptoms last for a month already. Within the last 2 weeks she lost 3 kilograms. Objectively, she is a tired-looking thin woman. Skin hyperpigmentation is observed in many areas of her body, most prominently on the face, neck, and the backs of

her hands (the areas exposed to light). What hormone is produced in an excess in this patient, most likely causing the hyperpigmentation?

- A. Thyroid-stimulating hormone (TSH)
- B. β -Lipotropin
- C. Melanocyte-stimulating hormone (MSH)
- D. Gonadotropins
- E. Growth hormone (GH)

14. A 2-year-old child with delayed physical and mental development was brought to the hospital. The child's parents are the most concerned by frequent profuse vomiting that occurs in their child after eating. Laboratory testing detected phenylpyruvic acid in the child's urine. What type of metabolism is disturbed, causing this pathology?

- A. Phosphorus and calcium metabolism
- B. Amino acid metabolism
- C. Carbohydrate metabolism
- D. Lipid metabolism
- E. Water and electrolyte metabolism

15. A 54-year-old woman had a total thyroidectomy for papillary thyroid carcinoma. 11 hours after operation she complained of tingling around her mouth. On physical examination, the Trousseau's sign and Chvostek's sign are present. Her condition rapidly deteriorates with laryngospasm and focal seizures. The surgeon suspects surgical destruction of the parathyroid glands. What is the most likely cause of this patient's neurological condition?

- A. Hyperkalemia
- B. Hypophosphatemia
- C. Hyperchloremia
- D. Hyponatremia
- E. Hypocalcemia

16. A 20-year-old woman came to the clinic after missing her last 2 periods. Her cycles are usually regular, occurring at 28-30 day interval with moderate bleeding and occasional abdominal pain. She also complains of progressively diminishing peripheral vision. Her doctor determined the loss of vision in the lateral halves of both retinas. What structure is likely to be affected, causing bitemporal hemianopsia in the patient?

- A. Left optic nerve
- B. Right optic tract
- C. Optic chiasm
- D. Right optic nerve
- E. Left optic tract

17. A man with signs of peritonitis was brought to the admission room. He has a 12-year-long history of peptic ulcer disease with ulcer localization on the posterior gastric wall. He was diagnosed with gastric ulcer perforation. What anatomical structure is likely to be contaminated with gastric content in this case?

- A. *Canalis lateralis dexter*
- B. *Bursa pregastrica*
- C. *Bursa hepatica*
- D. *Bursa omentalis*
- E. *Canalis lateralis sinister*

18. A 50-year-old woman complains of constant thirst. She drinks large amounts of liquid and has increased diuresis. Her blood glucose is 12 mmol/L. Her urine contains glucose. What endocrine organ is likely to be functionally impaired in this patient?

- A. Neurohypophysis
- B. Parathyroid gland
- C. Pancreas
- D. Adrenal glands
- E. Thyroid gland

19. During your physiology class, the professor asks you to explain the effect of various hormones and neurotransmitters on the metabolism of glucose in the human body. You open your report with the statement that the use of glucose by the cells is preceded by its transport from the intercellular substance into the cell. What hormone is most likely responsible for the glucose uptake by the cell?

- A. Insulin
- B. Thyroxine
- C. Adrenaline
- D. Glucagon
- E. Aldosterone

20. A man has signs of acute respiratory viral disease. His physician referred him for microbiological testing. A mucus smear obtained from the patient's tonsils contains spherical microorganisms arranged in short chains. The patient was diagnosed with tonsillitis. What microorganisms were detected in the smear from the patient's tonsils?

- A. Micrococci
- B. Staphylococci
- C. Tetracocci
- D. Diplococci
- E. Streptococci

21. A soft tissue node obturated the patient's middle lobe bronchus, leading to the development of right middle lobe atelectasis. In the area of obturation, bronchial biopsy detected proliferations of atypical glandular epithelium with pathological mitoses. Epithelium penetrates into the underlying tissues and cartilage. What disease is the most likely in this case?

- A. Bronchial epithelial dysplasia
- B. Inflammatory polyp
- C. Bronchitis deformans
- D. Bronchogenic lung cancer
- E. Bronchial sarcoma

22. A 23-year-old woman was brought into the emergency department complaining of bloody diarrhea, tiredness, and dizziness. A few days ago she went to a fast food restaurant for a birthday party. Her friends are experiencing similar symptoms. Laboratory studies show anemia. What samples should be obtained for microbiologic testing in this case?

- A. Stool
- B. Urine
- C. Bile
- D. Blood
- E. Cerebrospinal fluid

23. An unidentified surgical specimen is received for histopathologic analysis. A portion of the specimen is cut and stained with hematoxylin and eosin. Under the microscope, you see an organ encapsulated by dense connective tissue that extends to the deeper areas by way of the trabecular extensions. The organ can be subdivided into two regions: a cortex with lymphoid nodules and medulla with medullary cords populated by plasma cells, B cells, and T cells. What anatomical structure is the most likely origin of this surgical specimen?

- A. Tonsils
- B. Bone marrow
- C. Spleen
- D. Lymph node
- E. Thymus

24. A team of medical students researches the phases of cell cycle. During one of the mitotic phases the cell has nearly

completed its division, the chromosomes decondense, and two nuclei begin to form around them. What phase is likely observed in the cell at this moment?

- A. Prophase
- B. Metaphase
- C. Telophase
- D. -
- E. Anaphase

25. A woman was bitten by a venomous snake (*Macrovipera lebetinus*). Autopsy of her body shows marked intravascular hemolysis. Her pancreas, bone marrow, and lymph nodes are brown. Microscopy detects abundant brown pigment in the macrophage cytoplasm. What pigment accumulates in the tissues in such cases?

- A. Hematin
- B. Bilirubin
- C. Lipofuscin
- D. Hematoidin
- E. Hemosiderin

26. Histological microslide shows a gastrointestinal organ. The wall of this organ consists of 4 layers: mucosal, submucosal, muscular, and serous. The mucosal layer has folds and pits. What organ has such appearance?

- A. Duodenum
- B. Esophagus
- C. Small intestine
- D. Appendix
- E. Stomach

27. After a severe emotional strain a 45-year-old man suddenly developed constricting pain in the area of his heart. The pain was irradiating into his left arm, neck, and left shoulder blade. His face was pale and covered in cold sweat. Nitroglycerine was able to relieve the pain. What condition developed in the patient in this case?

- A. Myocardial infarction
- B. Gastric ulcer perforation
- C. Angina pectoris
- D. Psychogenic shock
- E. Stroke

28. A 27-year-old woman complains of insomnia, irritability, hand tremor, acute weight loss despite high appetite, and constant fever with body temperature of 37.2-37.5°C. What endocrine gland is likely to be functionally impaired in this case?

- A. Pancreas
- B. Parathyroid gland
- C. Neurohypophysis
- D. Adrenal glands
- E. Thyroid gland

29. The patient has developed a refractive error, where the focal point of the image is located not precisely on the retina, but anterior to it. This causes distant objects to be blurry, while close objects often appear normal. Among the other signs there are headaches and eye strain. This condition is associated with retinal detachment, cataract, and glaucoma. Name this condition:

- A. Emmetropia
- B. Nearsightedness
- C. Blindness
- D. Farsightedness
- E. Astigmatism

30. A 65-year-old woman was brought into the emergency department because of shortness of breath and chest pain that started a few hours ago. She denied having fever, expectoration, or any accompanying symptoms. She had a 5-year-long history of deep vein thrombosis in her shin. After a time, she died of respiratory distress. Autopsy reveals red loose masses lodged in the bifurcation of the pulmonary trunk with extensions into both the left and the right pulmonary arteries. What is the most likely diagnosis?

- A. Pneumonia
- B. Pneumothorax
- C. Myocardial infarction
- D. -
- E. Thromboembolism