

1. Histological microslide shows a vessel with the wall that consists of endothelium, basement membrane, and loose connective tissue. What type of vessel is it?

- a. Hemocapillary
- b. Artery
- c. Lymphocapillary
- d. Muscular vein
- e. Non-muscular vein**

2. To determine the functional activity of blood corpuscles, a suspension of microorganisms was introduced into the test tube with packed white cells. In this case, the cytoplasm of some cells will contain phagocytized microorganisms. Which of the following cell types will show phagocytized microorganisms?

- a. Neutrophils and monocytes**
- b. Lymphocytes and eosinophils
- c. Lymphocytes and neutrophils
- d. Monocytes and lymphocytes
- e. Lymphocytes and basocytes

3. Які зміни з боку ізольованого серця можна очікувати після введення в перфузійний розчин адреналіну?

- a. Зупинка серця в діастолі
- b. Збільшення сили скорочень
- c. Збільшення частоти і сили скорочень**
- d. Збільшення частоти скорочень
- e. Зменшення сили скорочень

4. A 50-year-old patient has been hospitalized with signs of a hypertensive crisis. What is associated with a sharp increase in the blood pressure?

- a. Endothelial desquamation
- b. Hyalinosis of arterioles
- c. Endothelial dystrophy
- d. Spasm of arterioles**
- e. Necrosis of arterioles

5. Укажіть ефективні умови окисного фосфорилювання.

- a. Доступність АМФ, оксиген, відновлені еквіваленти
- b. Доступність ГДФ, оксиген, відновлені еквіваленти
- c. Доступність АТФ, окислені еквіваленти, вуглекислий газ
- d. Доступність АДФ, оксиген, відновлені еквіваленти**
- e. Доступність АМФ, оксиген, окислені еквіваленти

6. Blood testing of a 45-year-old man, who had gastrectomy three years ago, shows the following: erythrocyte count ---  $2.0 \cdot 10^{12}/\text{L}$ , Hb --- 85 g/L, color index --- 1.27. These changes in erythropoiesis were caused by problems with absorption of a certain vitamin. Name this vitamin.

- a.  $\text{B}_{12}$
- b.  $\text{B}_{12}$**
- c. Р
- d. А
- e. С

7. A patient at the oncology department has undergone radiation therapy. After that, morphology detected a significant disruption in the process of regeneration of epithelial layer in the small intestine mucosa. What cells of the epithelial membrane are damaged in this case?

- a. Endocrine cells
- b. Columnar epitheliocytes without a brush border, located in the crypts**
- c. Exocrinocytes with acidophilic granulation (Paneth cells)
- d. Columnar epitheliocytes with a brush border
- e. Goblet exocrinocytes

8. A patient with signs of jaundice has been hospitalized into the surgical department. Normally, bile does not enter the blood stream from the bile capillaries. What ultrastructural features of the hepatocyte structure contribute to this phenomenon?

- a. Polygonal shape of hepatocytes
- b. Biliary surface in hepatocytes
- c. Close contacts between hepatocytes**
- d. No proper wall in bile capillaries
- e. Microvilli on the surface of the capillaries

9. Autopsy shows clinical presentation of diffuse osteoporosis with foci of bone tissue destruction. In the bone marrow, proliferation of atypical plasma cells can be observed. Bence Jones protein is detected in urine. What diagnosis can be made in this case?

- a. Lymphogranulomatosis
- b. Osteodystrophy
- c. Multiple myeloma**
- d. Osteoporosis
- e. Bekhterev disease (ankylosing spondylitis)

10. The molecule of immature mRNA (pro-mRNA) contains more triplets than there are amino acids in the synthesized protein, because translation is normally preceded by:

- a. Initiation
- b. Mutation
- c. Repair
- d. Processing**
- e. Replication

11. A male neonate born to a 24-year-old, who was pregnant for the first time, had jaundice at 8 hours of life. The neonate's red blood cell type was A+, while the mother's RBC type was O+. Laboratory studies revealed elevated titer of mother's anti-A antibody, normal erythrocyte glucose-6-phosphate and negative sickle cell test. The infant's hemoglobin was 106 g/L. Which of the following is the most likely cause of infant's jaundice?

- a. Rh incompatibility
- b. Decrease in hemoglobin level
- c. Hyperbilirubinemia**
- d. Sickle cell disease
- e. Glucose-6-phosphate dehydrogenase (G6PD) deficiency

12. During a surgery, a patient developed signs of dithilane (suxamethonium) overdose. What will reduce the effects of intoxication in this case?

- a. Blood transfusion**
- b. Muscarinic antagonists
- c. Anticholinesterase drugs
- d. Nicotinic antagonists
- e. Ganglionic blockers

13. In course of an experiment there has been an increase in the nerve conduction velocity. This may be caused by an increase in the concentration of the following ions that are present in the solution around the cell:

- a.  $\text{Na}^+$**
- b.  $\text{K}^+$  and  $\text{Cl}^-$
- c.  $\text{Ca}^{2+}$  and  $\text{Cl}^-$
- d.  $\text{K}^+$  and  $\text{Na}^+$
- e.  $\text{Ca}^{2+}$

14. A man was hospitalized in a comatose state. His medical history states that he has been suffering from type II diabetes mellitus for 5 years. Objectively, his respiration is noisy and deep. His blood glucose is 15.2 mmol/L, ketone bodies --- 100  $\mu\text{mol}/\text{L}$ . What complication of diabetes mellitus can be characterized by such findings?

- a. Hyperglycemic coma
- b. Hyperosmolar coma
- c. Ketoacidotic coma**
- d. Hypoglycemic coma
- e. Hepatic coma

15. Autopsy of a 47-year-old miner's body, who worked down in the shaft for 10 years, reveals bands of a whitish fibrous tissue and nodules 0.2-0.3 cm in diameter in his lungs. Histology detects in the nodules a small amount of brownish dust and concentric proliferation of a cell-poor connective tissue with marked hyalinosis. What type of pneumoconiosis can be suspected in this case?

- a. Siderosis
- b. Asbestosis
- c. Berylliosis
- d. Talcosis
- e. Silicosis**

16. An increase in the circulating blood volume under the influence of aldosterone and antidiuretic hormone leads to the activation of secretion of a certain substance. What substance is it?

- a. Angiotensin II
- b. Renin
- c. Atrial natriuretic peptide**
- d. Melatonin
- e. Angiotensinogen

17. The patient's ECG shows an increased duration of the QRS complex. What is the likely cause of this finding?

- a. Disturbed conduction in the atrioventricular nodes
- b. Increased atrial excitation time
- c. Increased atrial excitability
- d. Increased atrial and ventricular excitability
- e. Increased ventricular excitation time**

18. A large number of glucose oxidation metabolites are dissolved in the cytoplasm of myocytes. What metabolite can be directly converted into lactate?

- a. Pyruvate**
- b. Oxaloacetate
- c. Glucose-6-phosphate
- d. Glycerophosphate
- e. Fructose-6-phosphate

19. A man has gradually developed a plaque on the skin of his face with necrosis and an ulcer in its center. Pathohistology of the biopsy material reveals proliferation of atypical epithelial cells with a large number of pathological mitoses. What disease can be characterized by such clinical and laboratory findings?

- a. Papilloma
- b. Skin cancer**
- c. Fibroma
- d. Trophic ulcer
- e. Sarcoma

20. The father and mother are healthy. Amniocentesis detects that the karyotype of the fetus is 45 X0. Make the diagnosis.

- a. Trisomy X
- b. Turner syndrome**
- c. Cri-du-chat syndrome
- d. Patau syndrome
- e. Edwards syndrome

21. A patient complains of palpitation after stress. The pulse is 104 bpm, P-Q=0,12 seconds, there are

no changes of QRS complex. What type of arrhythmia does the patient have?

- a. Ciliary arrhythmia
- b. Sinus tachycardia**
- c. Extrasystole
- d. Sinus bradycardia
- e. Sinus arrhythmia

22. When stimulation frequency of an isolated heart of a rabbit increases, incomplete relaxation of the ventricles of the heart can be observed because of:

- a. Increased sodium levels in cardiomyocytes
- b. Accumulation of calcium in cardiomyocytes**
- c. Increased potassium levels in the interstitium
- d. Inhibition of the sodium-potassium pump
- e. Increased potassium levels in cardiomyocytes

23. A 6-year-old child, who suffers from frequent respiratory diseases, develops eczema after eating citrus fruits. Inflammatory processes tend to have a protracted course in this child. What type of diathesis can be suspected in this case?

- a. Exudative catarrhal**
- b. Neuroarthritic
- c. Lymphohypoplastic
- d. Asthenic
- e. Hemorrhagic

24. A patient has been fasting for 48 hours. What substances are used by muscle tissue as energy sources under these conditions?

- a. Amino acids
- b. Ketone bodies**
- c. Lactate
- d. Pyruvate
- e. Glycerin

25. A person with a head injury in the temporal region has been diagnosed with an epidural hematoma. What artery is most likely to be damaged in this case?

- a. Superficial temporal artery
- b. Middle cerebral artery
- c. Middle meningeal artery**
- d. Anterior meningeal artery
- e. Posterior auricular artery

26. В експерименті тварині перерізали аксони нейросекреторних клітин супраоптичного ядра гіпоталамуса. Накопичення якого гормону буде порушено в гіпофізі?

- a. Ліпотропіну
- b. Вазопресину**
- c. Пролактину
- d. Соматотропіну
- e. Адренокортикотропіну

27. The patient's systolic blood pressure is 90 mm Hg, diastolic --- 70 mm Hg. Such systolic blood pressure is caused by the decrease of the following factor:

- a. Pumping ability of the left heart**
- b. Total peripheral resistance
- c. Pumping ability of the right heart
- d. Vascular tone
- e. Aortic compliance

28. Participation of a certain part of the central nervous system is mandatory for the formation of voluntary defecation in a child. What part of the central nervous system is it?

- a. Lateral nuclei of the hypothalamus

**b. Cerebral cortex**

- c. Medulla oblongata
- d. Ventromedial nuclei of the hypothalamus
- e. Coccygeal segments of the spinal cord

29. Transcription is the reaction of mRNA matrix synthesis on DNA matrix. Name the stages of transcription.

- a. Initiation, translation, elongation

**b. Initiation, elongation, termination**

- c. Initiation, elongation, translation
- d. Initiation, processing, splicing
- e. Processing, splicing, termination

30. A person produces little amount of thick saliva; its enzymatic activity is reduced, while its mucus content is increased. What glands are most likely to be functionally impaired, causing this condition?

**a. Parotid glands**

- b. Proper mucosal glands
- c. Sublingual glands
- d. Submandibular glands
- e. ---

31. A patient undergoes right-sided pulmonectomy due to lung cancer. Name the anatomical structures of the right lung root (downward order):

- a. Artery, bronchus, veins

- b. Veins, artery, bronchus

**c. Bronchus, artery, veins**

- d. Veins, bronchus, artery

- e. Artery, veins, bronchus

32. After 10 days of treatment with an antibiotic, a patient developed signs of dysbiosis: dyspepsia, candidiasis, jaundice, and photosensitization, which indicates that this antibiotic belongs to the following group:

- a. Cephalosporin group

- b. Rifampicin group

- c. Penicillin group

**d. Tetracycline group**

- e. Aminoglycoside group

33. Five hours after eating seafood, a 22-year-old woman developed small itchy papules on the skin of her torso and distal parts of her limbs. The papules were partially merging with each other. 24 hours later, the rash spontaneously disappeared. What mechanism of hypersensitivity underlies these changes?

**a. Atopy (local anaphylaxis)**

- b. Antibody-dependent cell-mediated cytolysis

- c. Systemic anaphylaxis

- d. Cell-mediated cytotoxicity

- e. Immune complex-mediated hypersensitivity

34. До лікарні надійшов чоловік віком 32 роки із травмою лівої кисті. Під час огляду виявлено різану рану в ділянці підвищення великого пальця й утруднене його згинання. Який м'яз пошкоджено?

- a. M. abductor pollicis brevis

**b. M. flexor pollicis brevis**

- c. M. flexor pollicis longus

- d. M. adductor pollicis brevis

- e. M. opponens pollicis brevis

35. A patient was prescribed an adrenomimetic drug to stop an attack of bronchial asthma. Select this drug from the list.

a. Cerucal (Metoclopramide)

**b. Salbutamol**

c. Asparcam (Potassium and magnesium aspartate)

d. Nitrosorbide (Isosorbide dinitrate)

e. Rheopolyglucin (Dextran)

36. After a hemorrhage into the left hemisphere of the brain, the patient has lost the ability to speak. In this case, thrombosis occurred in the basin of:

a. Arteria communicans anterior

b. Arteria cerebri posterior

c. Arteria cerebri anterior

**d. Arteria cerebri media**

e. Arteria communicans posterior

37. A 24-year-old man undergoes surgery and during the operation, an organ is excised and sent for histological evaluation. A light microscopic examination reveals the organ encased by thin connective tissue capsule that enters the substance of the lobes to further subdivide the organ into irregular lobular units. Each lobule contains a cluster of follicles filled with colloid. Follicular epithelium consists of low columnar, cuboidal or squamous cells depending on the level of activity of the follicle. Which of the following organs does this tissue most likely belong to?

a. Pancreas

b. Parathyroid gland

**c. Thyroid gland**

d. Parotid gland

e. Thymus

38. Methyl groups (\$-CH<sub>3</sub>\$) are used in the body for the synthesis of such important compounds as creatine, choline, adrenaline, etc. What essential amino acid is the source of these groups?

a. Isoleucine

**b. Methionine**

c. Valine

d. Tryptophan

e. Leucine

39. Жінка віком 47 років осліпла внаслідок хронічної інфекції зумовленої Chlamidia trachomatis.

Для виявлення цитоплазматичних включень, специфічних для цього збудника, було виготовлено мікропрепарат із зішкрубу з кон'юнктиви. Який із нижченаведених методів треба застосувати для його фарбування?

a. Грама

b. Нейссера

**c. Романовського-Гімзи**

d. Бурі-Гінса

e. Лефлера

40. A patient with scurvy presents with disturbed processes of proline and lysine hydroxylation in the collagen. What biochemical process is inhibited in this case, causing this disorder?

a. Oxidative phosphorylation

b. Peroxidase oxidation of fats

c. Tissue respiration

d. Lipid peroxidation

**e. Microsomal oxidation**

41. In the removed uterus of a 55-year-old woman, a pathologist has found a dense node in the thick of the myometrium. The node is 5 cm in diameter and has clear boundaries. On section, its tissues are gray-pink and fibrous. Microscopically, the tumor consists of smooth muscle cells that form bundles of varying thickness, which run in different directions, and of layers of connective tissue, hyalinized in some places. What tumor has developed in the patient?

a. Fibrosarcoma

- b. Fibromyoma
- c. Fibroma
- d. Rhabdomyoma
- e. Myosarcoma

42. A 14-year old girl presents to the emergency department for evaluation of an <<infected leg>>. She states there is no history of trauma but mentions she had a history of sickle cell disease. On physical examination, her upper part of right shin is very painful, red, swollen and hot. Her temperature is 39.2°C) An X-ray shows focal bony lysis and loss of trabecular architecture in the metaphysis of right tibia. Increased activity of which of the following cells is the most likely cause of bone reabsorption in this patient?

- a. Chondroblasts
- b. Chondrocytes
- c. Osteocytes
- d. Osteoblasts
- e. Osteoclasts

43. Ionizing radiation or vitamin E deficiency affect the cell by increasing lysosome membrane permeability. What are the possible consequences of this pathology?

- a. Partial or complete cell destruction
- b. Intensive energy production
- c. Restoration of cytoplasmic membrane
- d. Formation of maturation spindle
- e. Intensive protein synthesis

44. A woman, who complains of a constant feeling of fear and anxiety, has been diagnosed with neurosis and prescribed a drug with an anxiolytic effect. What drug is it?

- a. Caffeine and sodium benzoate
- b. Diazepam
- c. Aminazine (Chlorpromazine)
- d. Piracetam
- e. Ginseng tincture

45. Because of a cerebral hemorrhage, a patient developed impaired speech perception (sensory aphasia). What brain structure is likely to be damaged in this case?

- a. Inferior frontal gyrus
- b. Inferior temporal gyrus
- c. Superior temporal gyrus
- d. Postcentral gyrus
- e. Superior frontal gyrus

46. Під час мікроскопічного дослідження препарату, виготовленого з периферійної ділянки легені, виявлено поперечний переріз трубчастого утворення, стінка якого складається зі слизової та адвентиційної оболонок. Поверхня слизової оболонки має численні складки, а м'язова пластинка утворена суцільним шаром гладких міоцитів. Який це елемент повітроносних шляхів?

- a. Альвеолярний хід
- b. Малий бронх
- c. Великий бронх
- d. Середній бронх
- e. Термінальна бронхіола

47. Чоловік віком 38 років скаржиться на швидку стомлюваність, у положенні стоячи із закритими очима він похитується, втрачає рівновагу. Тонус скелетних м'язів знижений. Яка з нижченаведених структур мозку, найбільш імовірно, вражена у пацієнта?

- a. Базальні ганглії
- b. Мозочок
- c. Прецентральна звивина кори великих півкуль

- d. Гіпоталамус
- e. Таламус

48. Під час мікроскопічного дослідження: клітини овальної форми, розміром 150 мкм, цитоплазма з включеннями жовтка, але не виявлено центролей. Укажіть цю клітину.

- a. Міоцит
- b. Макрофаг
- c. Фібробласт
- d. Лейкоцит
- e. Овоцит

49. A 38-year-old woman, who was diagnosed with systemic lupus erythematosus (SLE) 3 years ago, comes to her physician with a complaint of facial swelling and decreased urination that she first noticed 2 weeks ago. She currently takes azathioprine and corticosteroid. Her vital signs show blood pressure 150/90 mm Hg, pulse --- 91/min., temperature --- 36.8°C and respiratory rate --- 15/min. On physical examination, the doctor notices erythematous rash on her face exhibiting a butterfly pattern. The laboratory studies reveal hypercholesterolemia, hypertriglyceridemia and proteinuria. Which of the following is the most likely mechanism of SLE's complication in this patient?

- a. Decrease in renal blood flow (ischemic nephropathy)
- b. Acute infection of the kidney
- c. Immune complex-mediated glomerular disease
- d. Increased plasma oncotic pressure
- e. ---

50. A person with dilated subcutaneous veins clearly visible in the area of the navel ("caput medusae") has been hospitalized. What large vein has impaired patency in this case?

- a. V. iliaca interna
- b. V. mesenterica inferior
- c. V. portae hepatis
- d. V. mesenterica superior
- e. V. renalis

51. Під час аутопсії тіла чоловіка віком 47 років виявили виразку по задній стінці шлунка діаметром 3 см, яка проникає у прилеглу до кишki тканину підшлункової залози. У ділянці виразки у підшлунковій залозі та в оточуючій жировій тканині множинні стеатонекрози. Яке ускладнення виразкової хвороби виникло у чоловіка?

- a. Флегмана стінки шлунка
- b. Пенетрація
- c. Стеноз
- d. Малігнізація
- e. Перфорація

52. After bilateral adrenalectomy performed on a dog, the animal developed muscle weakness, adynamia, low body temperature, and hypoglycemia. What other sign is likely to be observed in case of adrenal insufficiency?

- a. Arterial hypotension
- b. Lymphopenia
- c. Increased glycogen synthesis
- d. Increased resistance to bacteria and toxins
- e. Increased sodium and chloride levels in the blood serum

53. An 18-year-old girl comes to her physician with concern about her health because she has not achieved menarche. She denies any significant weight loss, changes in mood, or changes in her appetite. She mentions that her mother told her about mild birth defects, but she cannot recall the specifics. Past medical history and family history are benign. On physical examination, the patient is short in stature, has a short and webbed neck and wide chest. Staining of buccal smear reveals absence of Barr bodies in the nucleus of epithelial cells. A urine pregnancy test is negative. Which of the following genetic disorders is the most likely cause of this patient's condition?

- a. Turner syndrome
- b. Klinefelter syndrome
- c. Patau syndrome
- d. Edwards syndrome
- e. Cri du chat (<<cat-cry>>) syndrome

54. A patient complains of paroxysmal pain in the area of upper teeth and lip. The pain radiates into the infraorbital region. Examination detects disturbed sensitivity in the area of the lip, cheek, and wings of the nose. What nerve is affected in this case?

- a. Mandibular
- b. Maxillary
- c. Facial
- d. Ophthalmic
- e. Accessory

55. A 56-year-old man presents for a checkup. The patient says he has to urinate quite frequently, but denies any dysuria or pain on urination. Past medical history is significant for diabetes mellitus type 2 and hypertension, both managed medically. Current medications are metformin, aspirin, rosuvastatin, captopril and furosemide. Laboratory findings are significant for the following: Glycated Hemoglobin (Hb A1c) --- 8.0%, Fasting Blood Glucose --- 12 mmol/L. His doctor decides to add glibenclamide to the therapy. Which of the following is the most likely mechanism of this drug's action?

- a. Stimulation of insulin release
- b. Stimulation of glucose reuptake by the cell
- c. ---
- d. Facilitation of glucose absorption in the intestine
- e. Inhibition of insulin release

56. У складі кісткової тканини виявлено великі клітини, що містять численні лізосоми, багато ядер, гофровану зону. Яку назву мають ці клітини?

- a. Остеобласти
- b. Остеокласти
- c. Мезенхімні клітини
- d. Остеоцити
- e. Напівстовбурові остеогенні клітини

57. Під час огляду новонародженої дитини лікар діагностував вроджену м'язову кривошию. Який м'яз шиї уражений?

- a. M. mylohyoideus
- b. M. sternohyoideus
- c. M. platysma
- d. M. sternocleidomastoideus
- e. M. omohyoideus

58. A 43-year-old man seeks evaluation at an emergency department with complaints of fever with chills, malaise, diffuse abdominal pain for over a week, diarrhea and loss of appetite. He says that his symptoms are progressively getting worse. He recalls that the fever began slowly and climbed its way up stepwise to the current 39.8°C. His blood pressure is 110/70 mm Hg. A physical exam reveals a coated tongue, enlarged spleen and rose spots on the abdomen. Serologic study shows the agglutinin O titre of 1:200 by the Widal test. Which of the following is the most likely causative organism for this patient's condition?

- a. Vibrio cholerae
- b. Mycobacterium tuberculosis
- c. Leptospira interrogans
- d. Enterohemorrhagic E. coli
- e. Salmonella typhi

59. A histological specimen of a woman's ovary shows a round formation, consisting of large glandular cells that contain lutein pigment. In the center of this structure, there is a small scar made of

connective tissue. Name this formation:

- a. Mature follicle
- b. Corpus albicans
- c. Secondary follicle
- d. Atretic body
- e. Corpus luteum

60. Під час виконання оперативного втручання на щитоподібній залозі хірургу потрібно виділити верхню та нижню щитоподібні артерії, які утворюють у залозі артеріальні анастомози. Гілками яких великих судин є ці артерії?

- a. A) subclavia et truncus thyrocervicalis
- b. A) subclavia et a. transversa colli
- c. A) carotis interna et a. subclavia
- d. A) carotis externa et a. carotis interna
- e. A) carotis externa et a. subclavia

61. After an intracerebral hemorrhage, the patient's speech became indistinct. Sound production in the larynx and movements of the lower jaw are retained. The nuclei of what nerves have been affected by the hemorrhage in this case?

- a. Nuclei n. glossopharyngeus
- b. Nuclei n. facialis
- c. Nuclei n. hypoglossi
- d. Nuclei n. vagi
- e. Nuclei n. accessorii

62. Який механізм розвитку протиболіової дії наркотичного анальгетика?

- a. Гальмування серотонінергічних рецепторів
- b. Активація опіатних рецепторів
- c. Активація D2-дофамінових рецепторів
- d. Гальмування гістамінергічних рецепторів
- e. Гальмування холінергічних рецепторів

63. Яку функцію виконують келихоподібні клітини одношарового багаторядного війчастого епітелію бронхів ?

- a. Опорну
- b. Камбіальну
- c. Скоротливу
- d. Всмоктувальну
- e. Залозисту

64. A patient was hospitalized with the following diagnosis: exacerbated peptic ulcer disease of the duodenum, duodenal bulb ulcer. Gastric juice analysis shows high secretory and acid-producing function of the stomach. What drug inhibits the secretory function of the gastric glands by blocking H<sub>2</sub> receptors?

- a. Methacin
- b. Platiphyllin
- c. Belladonna dry extract
- d. Famotidine
- e. Atropine

65. It has been found out that one of a pesticide components is sodium arsenite that blocks lipoic acid. Which enzyme activity is impaired by this pesticide?

- a. Pyruvate dehydrogenase complex
- b. Glutathione peroxidase
- c. Glutathione reductase
- d. Methemoglobin reductase
- e. Microsomal oxidation

66. A patient presents with a disturbed process of urea synthesis. It indicates the pathology of the

**following organ:**

- a. Liver
- b. Bladder
- c. Muscles
- d. Brain
- e. Kidneys

**67. Diazepam was prescribed to a person with psychoemotional disorders and disturbed sleep. The effect of diazepam is based on:**

- a. Inhibition of the limbic system
- b. Activation of the GABA receptor system
- c. Excitation of reticular formation
- d. Increase of reflex reaction time
- e. Decrease of blood pressure

**68. In the course of an urgent surgery, the vermiform appendix of the patient was excised. The appendix was acutely distended and gray-black throughout its whole length. In the distal segment a defect of the appendix wall was detected, through which a foul-smelling gray-brown substance was being discharged from the appendix lumen. Histological analysis shows necrotization of the appendix wall with hemorrhagic foci; the lumen of the mesenteric artery is filled with a thrombus. What type of appendicitis is it?**

- a. Acute simple
- b. Chronic
- c. Acute phlegmonous
- d. Acute gangrenous
- e. Acute superficial

**69. A 26-year-old female patient with bronchitis has been administered a broad spectrum antibiotic as a causal treatment drug. Name this drug:**

- a. Isoniazid
- b. Dexamethasone
- c. Interferon
- d. Amoxicillin
- e. Vancomycin

**70. The Wasserman reaction is markedly positive (++++) in a 30-year-old man. What infectious disease is diagnosed using the Wasserman reaction?**

- a. Poliomyelitis
- b. Brucellosis
- c. Syphilis
- d. Tuberculosis
- e. Influenza