1. 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. Hyalinosis of arterioles
b. Endothelial desquamation
c. Necrosis of arterioles
d. Endothelial dystrophy
e. Spasm of arterioles

2. 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

3. 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

4. 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

5. 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

6. 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

7. 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. Lymphocytes and neutrophils
b. Lymphocytes and eosinophils
c. Monocytes and lymphocytes
d. Neutrophils and monocytes
e. Lymphocytes and basocytes

8. Під час мікроскопічного дослідження препарату, виготовленного 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

9. 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

10. Під час мікроскопічного дослідження: клітини овальної форми, розміром 150 мкм, цитоплазма з включеннями жовтка, але не виявлено центріолей. Укажіть цю клітину.
a. Міоцит
b. Макрофаг
c. Фібробласт
d. Лейкоцит
e. Овоцит

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

12. 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. ---

13. 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

14. Під час аутопсії тіла чоловіка віком 47 років виявили виразку по задній стінці шлунка діаметром 3 см, яка проникає у прилеглу до кишки тканину підшлункової залози. У ділянці виразки у підшлунковій залозі та в оточуючій жировій тканині множинні стеатонекрози. Яке ускладнення виразкової хвороби виникло у чоловіка?
a. Флегмона стінки шлунка
b. Пенетрація
c. Стеноз
d. Малігнізація
e. Перфорація

15. 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

16. 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

17. 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

18. 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

19. 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

20. 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

21. Blood testing of a 45-year-old man, who had gastrectomy three years ago, shows the following: erythrocyte count --- $2.0 · 10^{12$/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. A

b. P

c. C

d. B_{12}

e. B_{6

22. 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

23. 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

24. 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

25. 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

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

27. Укажіть ефективні умови окисного фосфорилювання.
a. Доступність ГДФ, оксиген, відновлені еквіваленти
b. Доступність АМФ, оксиген, окислені еквіваленти
c. Доступність АМФ, оксиген, відновлені еквіваленти
d. Доступність АДФ, оксиген, відновлені еквіваленти
e. Доступність АТФ, окислені еквіваленти, вуглекислий газ

28. Який механізм розвитку протибольової дії наркотичного анальгетика?
a. Гальмування серотонінергічних рецепторів
b. Активація опіатних рецепторів
c. Активація Д2-дофамінових рецепторів
d. Гальмування гістамінергічних рецепторів
e. Гальмування холінергічних рецепторів

29. Які зміни з боку ізольованого серця можна очікувати після введення в перфузійний розчин адреналіну?
a. Збільшення частоти скорочень
b. Зупинка серця в діастолі
c. Збільшення сили скорочень
d. Збільшення частоти і сили скорочень
e. Зменшення сили скорочень

30. Яку функцію виконують келихоподібні клітини одношарового багаторядного війчастого епітелію бронхів ?
a. Опорну
b. Камбіальну
c. Скоротливу
d. Всмоктувальну
e. Залозисту

31. 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 H2 receptors?
a. Methacin
b. Platyphyllin
c. Belladonna dry extract
d. Famotidine
e. Atropine

32. It has been found out that one of a pesticide components is sodium arsenate 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

33. 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

34. 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

35. 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 trombus. What type of appendicitis is it?
a. Acute simple
b. Chronic
c. Acute phlegmonous
d. Acute gangrenous
e. Acute superficial

36. 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. Ventromedial nuclei of the hypothalamus
b. Medulla oblongata
c. Cerebral cortex
d. Coccygeal segments of the spinal cord
e. Lateral nuclei of the hypothalamus

37. 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

38. 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. Lactate
c. Pyruvate
d. Glycerin
e. Ketone bodies

39. 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

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

41. A 40-year-old woman dies of intracerebral hemorrhage after the hypertensive emergency. During an autopsy, the pathologist reveals severe obesity, excess of body hair and wide purplish stria on the abdomen. Microscopic examination of pituitary gland reveals hyperplastic acini populated by a homogenous cluster of deeply basophilic cells. Which of the following was the most likely underlying disease?
a. ---
b. Cushing disease
c. Arterial hypertension
d. Sheehan's syndrome
e. Hyperthyroidism

42. In some diseases of the nervous system, damage with chromatolysis phenomena can be observed in the neurocytes. What intracellular metabolic processes become disturbed in the neurons?
a. Synthesis of carbohydrates
b. Synthesis of glycolipids
c. Synthesis of lipids
d. Keratohyalin folding
e. Synthesis of protein

43. A blood smear of an allergic person contains a large number of round cells with a segmented nucleus and large bright pink granules in the cytoplasm. Name these blood cells.
a. Neutrophilic granulocytes
b. Eosinophilic granulocytes
c. Lymphocytes
d. Basophilic granulocytes
e. Erythrocytes

44. Autopsy of the body of a 14-year-old child who died of pneumonia revealed the following: multiple punctate and spotty hemorrhages in the skin, mucosa, and serous membranes; an enlarged flaccid spleen that is red on section and yields only a small amount of material when scraped; enlarged pale gray mediastinal and retroperitoneal lymph nodes with a slightly pinkish tint on the cross-section; raspberry-red bone marrow in flat and tubular bones. What disease is indicated by the described changes?
a. Chronic lymphoid leukemia
b. Chronic myeloid leukemia
c. Acute lymphoblastic leukemia
d. Acute myeloblastic leukemia
e. Lymphogranulomatosis

45. During smoking, cigarette smoke exits out of the patient's auricle. What structure of the auditory organ is damaged?
a. Bone labyrinth
b. External acoustic meatus
c. Tympanic membrane

d. Organ of Corti
e. Membranous labyrinth

46. В яку анатомічну ділянку через решітчасту кістку відкривається отвір лобової пазухи?
a. Верхній носовий хід
b. Нижній носовий хід
c. Середній носовий хід
d. Підскронева ямка
e. Хоани

47. Autopsy of the body of a 40-year-old man, who died of odontogenic sepsis, revealed sharp thickening of poorly mobile semilunar aortic valves. The tissue of the valve is whitish and opaque. Its outer surface has thrombotic deposits 1x1.5 cm in size. What type of endocarditis is it?
a. Acute verrucous endocarditis
b. Recurrent verrucous endocarditis
c. Fibroplastic endocarditis
d. Diffuse endocarditis
e. Ulcerative polypoid endocarditis

48. In an experiment, the processes of energy production in the epithelium of the renal tubules were blocked, as a result of which the diuresis increased 4 times. What is the most likely cause of polyuria in this case?
a. Decrease of potassium ion secretion
b. Decrease of urea secretion
c. Decrease of renal blood flow
d. Decrease of glomerular filtration rate
e. Decrease of sodium ion reabsorption

49. In cases of fatty infiltration of the liver, the synthesis of phospholipids becomes disrupted. In such cases, the patients are advised to eat more cottage cheese, because it contains a certain substance that can promote the methylation process in the synthesis of phospholipids. Name this substance.
a. Ethanolamine
b. Cysteine
c. Methionine
d. Calcium
e. Glycerine

50. Karyotyping detected 47 chromosomes (3 copies of chromosome 13) in a newborn child with multiple defects of the skull, limbs, and internal organs. What diagnosis can be made in this case?
a. Edwards syndrome
b. Patau syndrome
c. Klinefelter syndrome
d. Down syndrome
e. Turner syndrome

51. The patient's ECG shows an increased duration of the QRS complex. What is the likely cause of this finding?
a. Increased atrial excitation time
b. Increased ventricular excitation time
c. Disturbed conduction in the atrioventricular nodes
d. Increased atrial excitability
e. Increased atrial and ventricular excitability

52. A patient complains of pain in the right lateral abdomen. Palpation revealed a dense, immobile, tumor-like formation. A tumor is likely to be found in the following part of the digestive tube:
a. Colon ascendens
b. Colon descendens
c. Colon sigmoideum
d. Colon transversum

e. Caecum

53. Найважливішим медіатором центральної нервової системи є гамма-аміномасляна кислота. При декарбоксилуванні якої з амінокислот утворюється цей біогенний амін?
a. Гістидин
b. Тирозин
c. Триптофан
d. Лізин
e. Глутамат

54. During a blood transfusion, intravascular hemolysis of erythrocytes started developing in the patient. What type of hypersensitivity has developed in this patient?
a. Type II hypersensitivity (antibody-dependent)
b. Type IV hypersensitivity (cell-mediated cytotoxicity)
c. Type I hypersensitivity (anaphylactic)
d. Type III hypersensitivity (immune complex)
e. Type V hypersensitivity (granulomatosis)

55. A 54-year-old woman has a total thyroidectomy for papillary thyroid carcinoma. 11 hours after operation she complains 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 suggests surgical destruction of parathyroid glands. Which of the following is the most likely cause of this patient's neurologic abnormality?
a. Hypophosphatemia
b. Hypocalcemia
c. Hyperkalemia
d. Hyperchloremia
e. Hyponatremia

56. A histological specimen of an eyeball shows a biconvex structure, connected to the ciliary body with the fibrous strands of the ciliary zonule and covered on top with a transparent capsule. What structure is it?
a. Vitreous body
b. Sclera
c. Crystalline lens
d. Cornea
e. Ciliary body

57. A man has convergent strabismus. What muscle of the eyeball is damaged in this case?
a. Musculus rectus oculi superior
b. Musculus rectus oculi inferior
c. Musculus rectus oculi lateralis
d. Musculus rectus oculi medialis
e. Musculus obliqus oculi superior

58. Яка група організмів має нуклеоїди - кільцеві молекули ДНК, що формують хромосоми простої будови (відсутні гістони)?
a. Бактерії
b. Гриби
c. Бактеріофаги
d. Віруси
e. Найпростіші

59. A patient has an angina pectoris attack. What myotropic drug with resorptive action can be used to stop the attack?
a. Anaprilin (Propranolol)
b. Nitrosorbide (Isosorbide dinitrate)
c. Validol (Menthyl isovalerate)
d. Nitroglycerin

e. Menthol

60. Six hours have passed since the development of an acute myocardial infarction in the patient. During autopsy of the body, staining was used to identify the area of infarction. What was used to detect the area of necrosis?

a. Picrofuchsin
b. Toluidine blue
c. Congo red
d. Methyl violet
e. Tetrazolium salts

61. За умов дії якого ферменту арахідонова кислота (джерело синтезу ейкозаноїдів) вивільняється з фосфоліпідного бішару клітинних мембран?

a. Ліпоксигенази
b. Циклооксигенази
c. Фосфоліпази А2
d. Фосфоліпази С
e. Фосфоліпази D

62. What happens, when blood pressure and stimulation of baroreceptors and atrial volume receptors are decreased?

a. Increased production of atrial natriuretic peptide
b. Reduced production of renin in juxtaglomerular cells
c. Vasodilation of the systemic resistance vessels
d. Reduced production of aldosterone
e. Activation of the hypothalamic supraoptic nuclei and production of vasopressin

63. A 65-year-old woman presents to the emergency department because of shortness of breath and chest pain that started a few hours ago. She did not have a fever, expectoration, or any accompanying symptoms. She has a history of right leg deep vein thrombosis that occurred 5 years ago. Some time later, she dies of severe respiratory distress. A pulmonary autopsy specimen reveals red loose mass that is lodged in the bifurcation of the pulmonary trunk with extensions into both the left and right main pulmonary arteries. Which of the following is the most likely diagnosis?

a. Pneumothorax
b. ---
c. Thromboembolism
d. Pneumonia
e. Myocardial infarction

64. A 7-week-old infant is brought to the pediatrician due to feeding difficulty for the last 4 days. She has been drinking very little breast milk and stops feeding as if she is tired, only to start sucking again after a few minutes. On chest auscultation, bilateral wheezing is present. A cardiac murmur starts immediately after the onset of the first heart sound (S1), reaching its maximal intensity at the end of systole, and waning during late diastole. The murmur is best heard over the second intercostal space and radiates to the left clavicle. The first heart sound (S1) is normal, while the second heart sound (S2) is obscured by the murmur. The pediatrician suspects a patent ductus arteriosus. Communication between which of the following arteries is the most likely cause of hemodynamic instability?

a. Superior vena cava and aorta
b. Pulmonary artery and aorta
c. Superior vena cava and pulmonary artery
d. Aorta and pulmonary veins
e. Pulmonary artery and pulmonary veins

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

a. Asparcam (Potassium and magnesium aspartate)
b. Nitrosorbide (Isosorbide dinitrate)
c. Cerucal (Metoclopramide)

d. Salbutamol
e. Rheopolyglucin (Dextran)

66. If a certain part of the conductive path of the visual analyzer is damaged, it causes the loss of light sensitivity in the medial half of the retinas on the both sides. Name this part of the conductive path:
a. Left optic tract
b. Left optic nerve
c. Right optic nerve
d. Optic chiasm
e. Right optic tract

67. A 45-year-old woman comes to her physician with complaints of excessive fatigue and weakness. She says that these symptoms have been present for the past month. On further questioning, she admits having lost 3 kilograms in the last 2 weeks. On physical examination, she is a tired-appearing thin woman. Hyperpigmentation is present over many areas of her body, most prominently over the face, neck and back of hands (areas exposed to light). Increased production of which of the following hormones is the most likely cause of hyperpigmentation in this patient?
a. Thyroid-stimulating hormone (TSH)
b. β-Lipotropin
c. Melanocyte-stimulating hormone (MSH)
d. Gonadotropins
e. Growth hormone (GH)

68. Autopsy of a 47-year-old miner's body, who worked down in the shaft for 10 years, reveales 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. Berylliosis
b. Talcosis
c. Silicosis
d. Asbestosis
e. Siderosis

69. A patient with suspected dysentery was admitted to the infectious diseases department. What diagnostic method can confirm this diagnosis?
a. Biological method
b. Allergy testing
c. Serological method
d. Microscopy
e. Bacteriological method

70. After 10 days of treatment with an antibiotic, a patient developed signs of dysbosis: dyspepsia, candidiasis, jaundice, and photosensitization, which indicates that this antibiotic belongs to the following group:
a. Tetracycline group
b. Aminoglycoside group
c. Rifampicin group
d. Penicillin group
e. Cephalosporin group

71. During a surgery for a splenic injury, the surgeon must identify the artery that supplies the spleen with blood. This artery is a branch of:
a. A) hepatica communis
b. A) gastroduodenalis
c. Truncus coeliacus
d. A) gastrica sinistra
e. A) hepatica propria

72. 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. Sinus arrhythmia
b. Ciliary arrhythmia
c. Sinus bradycardia
d. Sinus tachycardia
e. Extrasystole

73. Examination of a patient with signs of hypertension shows that it would be most advisable to prescribe him a medicine that changes the blood pressure via the renin-angiotensin system. Name this medicine:

a. Apressin (Hydralazine)
b. Anaprilin (Propranolol)
c. Dibazol (Bendazol)
d. Octadine (Guanethidine)
e. Lisinopril

74. Examination of a patient revealed a reduced immunoglobulin count. What cells of the patient's immune system are likely to have an impaired function, causing this condition?

a. T-killers
b. Plasmablasts
c. Plasma cells
d. T-helpers
e. T-suppressors

75. Examination of a patient with a hearing impairment shows that the pathological process is localized at the level of the lateral lemniscus formation. At what level does is it normally form in the brain?

a. Thoracic spinal cord
b. Mesencephalon
c. Cervical spinal cord
d. Medulla oblongata
e. Metencephalon (pons)

76. 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. Mutation
b. Initiation
c. Repair
d. Processing
e. Replication

77. A 2-year-old boy is diagnosed with Down syndrome. What chromosomal changes may be the cause of this disease?

a. Monosomy X
b. Trisomy X
c. Trisomy 18
d. Trisomy 21
e. Trisomy 13

78. During a pathological childbirth, separation of the pubic bones occurred in the woman. What type of bone junction was damaged in this case?

a. Symphysis
b. Synchondrosis
c. Syndesmosis
d. Synostosis
e. Diarthrosis

79. A male neonate born to a 24-year-old, who was pregnant for the fist time, had jaundice at 8 hours

of life. The neonate's red blood cell type was A+, while the mothers 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. Glucose-6-phosphate dehydrogenase (G6PD) deficiency
b. Rh incompatibility
c. Hyperbilirubinemia
d. Decrease in hemoglobin level
e. Sickle cell disease

80. 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. opponens pollicis brevis
b. M. abductor pollicis brevis
c. M. adductor pollicis brevis
d. M. flexor pollicis brevis
e. M. flexor pollicis longus