1.Parents of a 10-year-old child have made an appointment with an endocrinologist due to complaints of the child's low height. The child's appearance is corresponding with that of a 5-yearold. What hormone causes such changes in physical development, if its secretion is disturbed? (2017; 2016, N 16, TB; 2014, N 7, TB)

**+Somatotropic hormone**
Adrenocorticotropic hormone
Thyroxin
Testosterone
Insulin

2.An injured person exhibits the following signs at the site of trauma: skin redness, throbbing small arteries, elevated local temperature, increased tissue turgor. What local blood circulation disorder are these presentations typical of? (2017; 2016, N 26, TB; 2013)

**+Arterial hyperemia**
Venous hyperemia
Thrombosis
Embolism
Ischemia

3.A person has been stung by a bee. The stung area developed redness and edema. What is the main mechanism of edema development? (2017)

**+Increased permeability of the capillaries**
Decreased oncotic blood pressure
Increased hydrostatic blood pressure
Decreased osmotic blood pressure
Disturbed lymphatic efflux

4.Nicotinic acid amide fulfills important metabolic function. What disorder develops, when it is deficient in the organism? (2017)

**+Pellagra**
Rickets
Anemia
Xerophthalmia
Beriberi

5.A patient was delivered into a resuscitation unit with signs of alcohol poisoning. The patient developed hypoxia of the following pathogenesis: (2017)

**+Tissue**
Hypoxic
Hemic
Circulatory
Mixed

6.Prolonged taking of cytostatic agents resulted in development of necrotic tonsillitis in the patient. It can be associated with the following changes in the leukocyte content: (2017)
**+Agranulocytosis**
Neutrophilic leukocytosis
Lymphopenia
Eosinopenia
Lymphocytosis

7.A patient with type I diabetes mellitus developed hyperketonemic coma. What acid-base imbalance will be observed in the patient? (2017)
**+Nongaseous acidosis**
Gaseous acidosis
Nongaseous alkalosis
Gaseous alkalosis
There will be no acid-base imbalances

8.Hyperlipemia can be observed in 2-3 hours after eating fatty food. 9 hours later lipid content normalizes again. How can this condition be characterized? (2017)
**+Alimentary hyperlipemia**
Transport hyperlipemia
Hyperplastic obesity
Retention hyperlipemia
Hypertrophic obesity

9.A patient presents with icteric sclera and mucous tunics; urine is dark; feces are light-colored. Blood content of direct and indirect bilirubin is increased, urine content of direct bilirubin is increased. What pathology can be characterized by these signs? (2017)
**+Obstructive jaundice**
Hemolytic jaundice
Hepatocellular jaundice
Jaundice of the newborn
Atherosclerosis

10.The patient presents with rapid growth of a tumor node and its progressing malignization. What stage of tumor growth can be characterized by these presentations? (2017)
**+Progression**
Promotion (activation)
Transformation
Exudation
Inactivation

11.A 55-year-old man, who had been suffering from mitral insufficiency for many years, developed acute heart failure. What pathophysiological type of heart failure can be observed in this case? (2017)
**+Due to cardiac overload**

Due to hypoxic damage to the heart
Due to coronarogenic damage to the heart
Due to neurogenic damage to the heart
Due to acute cardiac tamponade

12.Cataract (lenticular opacity) has developed in a 52-year-old woman with diabetes mellitus. Lenticular opacity was caused by intensification of the following processes: (2017; 2016, N 125, TB; 2015, N 128, TB)

**+Protein glycosylation**
Lipolysis
Ketogenesis
Protein proteolysis
Gluconeogenesis

13.A patient suffers from hyperchromic $B_{12}$-deficiency anemia. What vitamin preparation should be prescribed in this case? (2017)

**+Cyanocobalamin**
Riboflavin
Vicasol (Menadione)
Thiamine chloride
Retinol acetate

14.A 54-year-old man requested a pharmacist's advice on drug prescription. The patient has 4-year-long history of chronic glomerulonephritis and 2-yearlong history of persistent hypertension. What substance synthesized in the kidneys has important role in development of arterial hypertension? (2017)

**+Renin**
Nitric oxide
Aldosterone
Histamine
Catecholamines

15.A patient complains of general weakness, muscle weakness in the extremities (if the patient is asked to make a fist several times in a row, for example, the patient is capable of doing it only once), facial muscles are weak, swallowing is disturbed. Administration of acetylcholinesterase drugs removes these disturbances to a certain degree. Determine the pathology: (2017)

**+Myasthenia**
Paralysis
Paresis
Hemiplegia
Monoplegia

16.A 71-year-old woman developed mechanical jaundice due to obstruction of the bile duct with a chololith. Decrease of blood pressure and bradycardia are detected. These changes in functioning of the patient's cardiovascular system are caused by increased blood content of the following substance: (2017)

**+Bile acids**
Direct bilirubin
Indirect bilirubin
Urobilin
Stercobilin

17.A 5-year-old child presents with abdominal distension, abdominal cramps, and diarrhea occurring 1-4 hours after drinking milk. Described symptoms are caused by the lack of enzymes that break up: (2017; 2015, N 154, TB)
**+Lactose**
Glucose
Maltose
Saccharose
Fructose

18.During routine preventive examination the local pediatrician noticed a boy of short stature. Mental development of the child corresponds with his age. What endocrine disorder is it? (2017)
**+Pituitary nanism**
Cretinism
Acromegalia
Gigantism
Rickets

19.A 25-year-old-patient with the II degree thermal burns came to a doctor. Objectively: there are large blisters on the upper limbs; the blisters are filled with clear exudate containing mostly water and albumines with isolated leukocytes. Name the type of the exudate: (2017)
**+Serous**
Catarrhal (mucous)
Fibrinous
Purulent
Hemorrhagic

20.A patient with brain edema presents with respiration that is characterized by periods of several respiratory movements of equal amplitude alternating with periods of apnea. What pathologic respiration is it characteristic of? (2017)
**+Biot's respiration**
Gasping respiration
Apneustic respiration
Cheyne-Stokes' respiration
Kussmaul's respiration

21.A patient in the state of ketoacidotic coma presents with loud rapid respiration: labored expiration with tension of expiratory muscles occurs after deep inspiration. Name the type of pathologic respiration: (2017; 2016, N 192, TB)

**+Kussmaul's**
Cheyne-Stokes'
Gasping
Stenotic
Biot's

22.In 9 days after administration of a therapeutic serum the patient developed urticaria, itching, edemas, and lymph nodes enlargement. What type of allergic reaction has occurred in the patient? (2017)
**+Immune complex**
Cytotoxic
Anaphylactic
Stimulating
Cellular

23.Exudation is characteristic of inflammation. What factors cause exudation and local edema of the inflamed area? (2017)
**+Increased permeability of vessel wall**
Hyperglycemia
Ischemia
Leukocyte adhesion to endothelial cells
Decreased permeability of vessel wall

24.A 55-year-old man came to a doctor with complaints of acute pain in his big toes. Meat and wine remain permanently in his diet. The doctor suspects gout. What substance must be measured in the patient's blood to confirm this diagnosis? (2017)
**+Uric acid**
Urea
Lactate
Bilirubin
Ketone bodies

25.The patient's large-focal myocardial infarction is complicated with pulmonary edema. What disturbance of cardiohemodynamics contributed to the pulmonary edema development? (2017)
**+Acute left ventricular failure**
Acute right ventricular failure
Autoimmune myocarditis
Cardiogenic shock
Reperfusion syndrome

26.A patient has developed anuria. Blood pressure is 50/20 mm Hg. What process of uropoiesis caused acute decrease of urination? (2016, N 5, TB)
**+Glomerular filtration**
Obligate reabsorption
Facultative reabsorption

Tubular secretion

27.In an emergency situation a scuba diver has quickly risen from the depth to the surface in violation of safety regulations. He is unconscious, presents with respiratory failure and cardiac activity disorder as the result of decompression sickness. What complication can develop in the scuba diver? (2016, N 15, TB) (2015, N 12, TB)(2013, 2012)

**+Gas embolism**

Fat embolism

Air embolism

Cellular embolism

Thromboembolism

28.A patient complains of tachycardia, insomnia, weight loss, irritability, sweating. Objectively: the patient has goiter and slight exophthalmos. What gland is affected, and what functional disorder is it? (2016, N17, TB)

**+Hyperthyroidism**

Hypothyroidism

Hyperparathyroidism

Hypoparathyroidism

Adrenomedullary hyperfunction

29.A patient has been hospitalised with pneumonia. What kind of respiratory failure does the patient have? (2016, N 19, TB)

**+Restrictive**

Obstructive

Central

Peripheral

Thoracic diaphragm

30.In the state of fright the following signs can be observed: acute pallor of face, tremor of extremities. What kind of ischemia can be observed in such a condition? (2016, N 20, TB)

**+Angiospastic**

Compression

Obstructive (thrombus)

Metabolic

Obstructive (vascular wall thickening

31.At the sixth month of pregnancy a woman has been diagnosed with severe iron-deficiency anemia. Appearance of the following elements in her blood became the diagnostic character: (2016, N 35, TB) (2015, N 37, TB)

**+Hypochromic erythrocytes**
Macrocytes
Megalocytes
Reticulocytes
Erythroblasts

32.An ophthalmologist has detected increased time of dark adaptation in a patient. What vitamin deficiency can result in such symptom? (2016, N 81, TB)
**+A**
C
K
B1
B6

33.A 70-year-old patient presents with cardiac and cerebral atherosclerosis. Examination revealed changes of blood lipid spectre. Increase of the following lipoproteins plays a significant role in atherosclerosis pathogenesis: (2016, N 82, TB)
**+Low-density lipoproteins**
Very low-density lipoproteins
Intermediate density lipoproteins
High-density lipoproteins
Chylomicrons

34.During containment measures following Chornobyl Nuclear Power Plant disaster a worker has been exposed to a dose of ionizing emission of 6 Gy (600 R). The worker complains of general fatigue, nausea, dizziness, labile blood pressure and heart rate, short-term leukocytosis with lymphopenia. What stage of acute radiation sickness can be characterized by such presentations? (2016, N 83, TB)
**+Prodromal**
Manifest
Latent
Recovery
Long-term consequences

35.A woman noticed that a cut on her skin was still bleeding even after 20 minutes had passed. What vitamin deficiency causes such condition? (2016, N 88, TB) (2015, N 83, TB)
**+ Vitamin K**
Vitamin A
Vitamin D
Vitamin E

36.An elderly man exhibits low levels of red blood cells and hemoglobin in blood; however, his color index is 1,3. Blood smear analysis revealed megaloblasts. What type of anemia is observed in this case? (2016, N 98, TB)
**+B12-folic acid deficiency**
Iron-deficiency
Acquired hemolytic
Hereditary hemolytic
Chronic posthemorrhagic

37.After drinking milk a 1-year-old child developed diarrhea, flatulence. The baby is likely to have deficiency of the following enzyme: (2016, N 100, TB) (2015, N 94, TB)
**+Lactase**
Maltase
Aldolase
Hexokinase
Glycosidase

38.A patient with alcoholic cirrhosis complains of general weakness and dyspnea. The following is revealed: decrease of blood pressure, ascites, dilation of superficial veins of the stomach anterior wall, esophageal varicose veins dilatation, splenomegaly. What hemodynamics disorder does the patient suffer from? (2016, N 111, TB) (2015, N 104, TB) (2014, N 134, TB)(2012)
**+Portal hypertension**
Left ventricular failure
Right ventricular failure
Cardiac insufficiency
Collapse

39.A patient has icteric skin; unconjugated bilirubin content in blood is high; conjugated bilirubin in urine is not detected. There is significant amount of urobilin in urine and stercobilin in feces. Name the pathology characterized by given symptoms: (2016, N118, TB) (2015, N 117, TB) (2014, N 155, TB)
**+Hemolytic jaundice**
Obstructive jaundice
Jaundice of the newborn
Hepatocellular jaundice
Atherosclerosis

40.A 46-year-old patient was found to have hyperactivity of creatine kinase in the

blood serum. What pathology can be suspected? (2016, N 121, TB) (2015, N 124, TB)

**+Myocardial infarction**

Acute pancreatitis

Chronic hepatitis

Hemolytic anemia

Renal failure

41.A patient with pulmonary carcinoma has developed a case of pleurisy. Large amount of hemorrhagic exudate was obtained for analysis. What component is specific for hemorrhagic exudate? (2016, N 123, TB)

**+Erythrocytes**

Leukocytes

Platelets

Fibrin

Pus

42.A man received a radiation dose of 30 Gy. He presents with necrotic angina, disorders of the gastrointestinal tract. Blood tests revealed anemia, leukopenia and thrombocytopenia. What stage of acute radiation sickness is observed in the patient? (2016, N 127, TB)

**+Manifest illness stage**

Prodromal stage

Latent stage

Recovery

-

43.A patient with croupous pneumonia presents with sharp increase of body temperature up to $39^0$C, which persisted for 9 days with daily amplitude of 1 degree. What temperature curve could be observed? (2016, N 129, TB)

**+Stable**

Hectic

Septic

Recurrent

Atypical

44.A patient of a neurology unit suffers from paralysis of all limbs. Name this condition: (2016, N 158, TB)

**+ Tetraplegia**

Paraplegia

Hemiplegia

Paresis

Hypodynamia

45.The most severe and dangerous complication of diabetes mellitus is hypoglycemic coma that is characterized by loss of consciousness and is lethal, unless efficient emergency treatment is received by patient. What is the main pathogenetic component of hypoglycemic coma? (2016, N 159, TB)

**+Carbohydrate deficiency and low energy of cerebral neurons**

Carbohydrate deficiency and low energy of myocardium cells

Blood hyperosmia

Noncompensated ketoacidosis

Respiratory alkalosis

46.A woman complains of nausea, vomiting, skin itch. She was diagnosed with mechanical jaundice. What is the possible cause of skin itch in such a condition? (2016, N 165, TB)

**+Bile acids accumulating in the blood**

Increased blood content of indirect bilirubin

Cholesterol accumulating in the blood

Direct bilirubin appearing in the blood

Erythrocyte disintegration products accumulating in the blood

47.During ultrasound investigation a patient has been diagnosed with bilateral stenosis of renal artery with atherosclerotic genesis. Specify the bioactive substance that due to its excessive secretion is the key component of arterial hypertension pathogenesis in the given case: (2016, N 168, TB) (2015, N 159, TB)

**+Renin**

Cortisol

Vasopressin

Noradrenaline

Thyroxin

48.Modelling of immobilization stress is performed on a test animal – guinea pig – that starved for a day. Dissection revealed hyperemic gastric mucosa with multiple erosions. What theory of ulcer formation is confirmed by this test? (2016, N 188, TB)

**+Corticovisceral (stress)**

Vascular

Inflammatory

Mechanical

Peptic

49.A 40-year-old man presents with rapid weight gain after he had suffered a severe craniocerebral trauma. On examination the patient's weight was 125 kg, with his height being 175 cm. What mechanism of obesity development is the most likely in this case? (2016, N 195, TB) (2015, N 195, TB)

**+Hypothalamic**

Alimentary

Hormonal

Hereditary

-

50.A victim of a traffic accident is hospitalized at a resuscitation unit. Objectively: the patient is unconscious, BP is 90/60 mm Hg, high blood content of creatinine and urea is observed, diurnal diuresis is 80 ml. Characterize the patient's diurnal diuresis: (2015, N 2, TB)

**+Anuria**

Oliguria

Polyuria

Pollakiuria

Nocturia

51.A newborn child born from Rhnegative mother in the result of her third pregnancy presents with gradually worsening jaundice, irritated central nervous system, anemia. What type of jaundice does the infant suffer from? (2015, N 10, TB)

**+Hemolytic**

Hepatocellular

Obstructive

Parasitic

Toxic

52.The patient has been hospitalised with pneumonia. What kind of respiratory failure does the patient have? (2015, N 13, TB) (2014, N 9, TB)

**+Restrictive**

Obstructive

Central

Peripheral

Thoracic diaphragm

53.What disorder of local circulation is characterized by pallor, local temperature drop, pain, local sensitivity disorder, reduction of the organ volume? (2015, N 21, TB)

**+Ischemia**

Venostasis
Thrombosis
Embolism
Arterial hyperemia

54.Heart rate of a person at rest is 40/min. What structure is the pacemaker of heart in this man? (2015, N 23, TB)
**+Atrioventricular node**
Sinoatrial node
His' bundle
His' bundle branches
Purkinje fibers

55.The volume of air exhaled by a healthy person during quiet breathing was measured with a spirometer and determined to be 0,5 liter. What is this volume called? (2015, N 24, TB)
**+Tidal volume**
Inspiratory reserve volume
Expiratory reserve volume
Vital capacity of lungs
Residual volume

56.A patient has been taking diclofenac sodium for a long time. A family physician withdrew this drug and prescribed celecoxib. What disease was the cause of drug substitution? (2015, N 25, TB)
**+Peptic ulcer**
Bronchial asthma
Urolithiasis
Arterial hypertension
Chronic hepatitis

57.Diet of a human must contain vitamins. What vitamin is usually prescribed for treatment and prevention of pellagra? (2015, N 53, TB)
**+Vitamin PP**
Vitamin C
Vitamin A
Vitamin B1
Vitamin D

58.A 22-year-old man was stung by bees; the affected area became hyperemic and edematous. What is the leading mechanism of edema development in this patient? (2015, N 59, TB)

**+Increased permeability of the capillaries**
Decreased hydrostatic blood pressure in the capillaries
Increased oncotic pressure of tissue fluid
Impaired lymphatic efflux
Reduced oncotic pressure of blood

59.A patient has obstruction of the common bile duct. Which of these substances is usually found in urine in such cases? (2015, N 60, TB) (2013, 2012)
**+Bilirubin**
Ketone bodies
Uric acid
Creatinine
Glucose

60.A patient with systemic lupus erythematosus has developed diffuse affection of kidneys followed by proteinuria, hypoproteinemia, extensive swelling. What mechanism of proteinuria development is the most likely in this case? (2015, N 63, TB)
**+Autoimmune disorder of the nephron glomerulus**
Inflammatory disorder of the nephron tubule
Ishemic disorder of the nephron tubule
Increased concentration of blood proteins
Disorder of the urinary tracts

61.A 40-year-old man diagnosed with gastric ulcer has developed the symptoms anew after a long period of dormancy. Such disease course can be characterized as a: (2015, N 92, TB)
**+Recurrence**
Remission
Recovery
Latency
Prodromal phase

62.An elderly patient exhibits low levels of red blood cells and hemoglobin in blood, but the color index is 1,3. Blood smear analysis revealed megaloblasts. What type of anemia is observed in this case? (2015, N 93, TB)
**+$B_{12}$-folic acid deficiency**
Iron-deficiency
Acquired hemolytic
Hereditary hemolytic
Chronic posthemorrhagic

63.A man presents with signs of albinism: blonde hair, extreme photosensitivity, impaired vision. What amino acid metabolism is disrupted in the patient? (2015, N 95, TB)
**+Tyrosine**
Methionine
Proline
Histidine
Valine

64.A patient complains of pain in the small joints. High concentration of uric acid is detected in his blood plasma. What pathology causes such changes? (2015, N 118, TB)
**+Gout**
Diabetes mellitus
Phenylketonuria
Lesch-Nyhan syndrome
Diabetes insipidus

65.A patient suffering from coronary heart disease, who had had two myocardial infarctions of left ventricular wall, presents with bubbling breathing and dyspnea. Pulmonary auscultation reveals numerous moist crackles. What kind of heart failure is it? (2015, N 122, TB)
**+Left ventricular**
Right ventricular
Compensated
Subcompensated
Combined

66.A man received a radiation dose of 30 Gy. He presents with necrotic angina, disorders of the gastrointestinal tract. Blood tests revealed anemia, leukopenia and thrombocytopenia. What period of acute radiation sickness is observed in the patient? (2015, N 130, TB)
**+Height of disease**
Primary reactions
Imaginary wellbeing
End of disease

67.In the course of an experiment in the mesenteric vein of a toad a trombus was created with a crystal of common salt. What processes occurred during the first stage of trombus formation? (2015, N 131, TB)
**+ Adhesion, aggregation, agglutination of platelets**
Production of active thromboplastin

Production of thrombin
Production of fibrin monomer
Production of fibrin polymer

68.A patient has a mental disorder due to the insufficient synthesis of gammaaminobutyric acid in the brain. Such pathological changes might be caused by the deficiency of the following vitamin: (2015, N 135, TB)
**+Pyridoxine**
Tocopherol
Cyanocobalamin
Folic acid
Riboflavin

69.A patient suffers from mucosal dryness and mesopic vision disorder. What vitamin deficiency causes these symptons? (2015, N 149, TB)
**+A**
P
E
C
D

70.A patient was visiting a pharmacy, when he suddenly felt unwell. He developed palpitations, rapid heart rate, pain in the chest that after several minutes spread to the left scapula and left side of the head. What condition should be considered first? (2015, N 168, TB)
**+Ischemic heart disease**
Peptic gastric ulcer disease
Dysphagia
Pneumonia
Somatoform autonomic dysfunction

71.A 25-year-old-patient with the II degree thermal burns addressed a doctor. Objectively: there are large blisters on the upper limbs; the blisters are filled with clear exudate containing mostly water and albumines with isolated leukocytes. Name the type of the exudate: (2015, N 181, TB)
**+Serous**
Catarrhal (mucous)
Fibrinous
Purulent
Hemorrhagic

72.After ishemic stroke a 67-year-old patient developed reduced mobility of the left leg. Name this condition: (2015, N 192, TB)
**+Paresis**
Paralysis
Myasthenia
Hyperkinesia
Tremor

73.A 32-year-old patient with cerebellar tumor was delivered to an admission room of a hospital. The patient presents with ataxia that can be characterized by: (2015, N 193, TB)
**+Disrupted coordination of movements**
Involuntary contraction of skeletal muscles
Increased muscle tone
Pathological reflexes
Irregular force and direction of movements

74.During calculous cholecystitis attack the patient has developed the following symptoms: saponated feces and steatorrhea. What stage of fats metabolism is disrupted according to those symptoms? (2014, N 3, TB)
**+Fat digestion, absorption and secretion**
Fat absorption
Intermediary metabolism of fats
Fats metabolism in adipose tissue
Depositing disruption

75.The 55-year-old patient has been hospitalised due to chronic cardiac failure. Objectively: skin and mucosa are cyanotic, tachycardia, tachypnea. What kind of hypoxia does the patient have? (2014, N 8, TB) (2012)
**+Circulatory**
Anemic
Hemic
Tissue
Hypoxic

76.The patient with acute cardiac failure has developed dyspnea, tachycardia and cyanosis during physical exertion. Name the type of hypoxia. (2014, N 23, TB)
**+Circulatory**
Respiratory
Hemic
Hypoxic
Tissue

77.At the sixth month of pregnancy the female patient has been diagnosed with severe iron-deficiency anemia. Diagnostic character was the appearance of the following in blood: (2014, N 36, TB)
**+Hypochromic erythrocytes**
Macrocytes
Megalocytes
Reticulocytes
Erythroblasts

78.1 minute after the patient had been administered penicillin the patient's arterial pressure sharply dropped, pulse became thready, cold sweating and clonic convulsions began. Name this condition. (2014, N 41, TB)
**+Anaphylactic shock**
Traumatic shock
Cardiogenic shock
Septic shock
Burn shock

79.The patient with acute left ventricular failure has developed edema of lungs. What peripheral circulation disorder taking place in the lungs has caused this complication? (2014, N 56, TB)
**+Venous hyperemia**
Arterial hyperemia
Neuroparalytic arterial hyperemia
Pulmonary artery thrombosis
Ischemia

80.Knee joint enlargement and cutaneous edema has developed in the 46-year-old patient with acute knee joint inflammation on the second day. What stage of inflammation progressing are these symptoms usually observed at? (2014, N 57, TB)
**+Exudation**
Alteration
Proliferation
Regeneration
Sclerosis

81.In the process of chemical solution preparation laboratory assistant's forearm was exposed to concentrated hydrochloric acid. There are burning pain, hyperemia and swelling of the damaged area. What pathologic process are these symptoms evidential of? (2014, N 59, TB)

**+Inflammation**
Tumor
Embolism
Thrombosis
Lymphostasis

82.In 1915 Japanese scientists Katsusaburo Yamagiwa and Koichi Ichikawa became the first, who induced experimental tumors, by painting ears of rabbits with coal tar. What method of experimental tumor inducing did they use? (2014, N 65, TB)
**+Chemical induction**
Transplantation
Explantation
Cell-free filtrate induction
Radioisotope induction

83.The alleged diagnosis of the newlyhospitalised in-patient is leukemia. What symptom among those given below is diagnostic character differentiating acute leukemia from chronic leukemia? (2014, N 66, TB)
**+Leukemic hiatus**
Significant increase of leucocytes number
Leukosis rate
Eosinophil and basophil levels
Gumprecht's shadows (smudge cells)

84.Catabolism of body's own tissue proteins is intensified during such diseases as thyrotoxicosis and tuberculosis. This process is attended by intensive synthesis in liver and subsequent excretion with urine of the following: (2014, N 88, TB)
**+ Urea**
Glucose
Acetone bodies
Fatty acids
Nucleotides

85.Tetanic spasms of skeletal muscles occur under low calcium concentration in blood. What endocrine disorder can this condition be associated with? (2014, N 98, TB)
**+Hypofunction of parathyroid glands**
Hyperfunction of adrenal cortex
Hypofunction of adrenal cortex
Hyperthyroidism
Hypothyroidism

86.A newborn infant has hemolytic jaundice caused by rhesus incompatibility. What bile pigment will be concentrated highest in the blood of this infant? (2014, N 107, TB)

**+Unconjugated bilirubin**

Conjugated bilirubin

Urobilinogen

Stercobilinogen

Bile acids

87.The patient with acute cardiac insufficiency has decreased urine excretion caused by reduction of filtering taking place in glomerules. What causes this drop in filtration? (2014, N 108, TB)

**+Decrease of arterial pressure**

Increase of hepatic blood flow

Exsiccosis

Duct lumen obstruction

Decrease in number of functioning glomerules

88.The 49-year-old female patient suffering long-term from pancreatic diabetes has developed the following symptoms after administering insulin: weakness, facial pallor, palpitation, anxiety, double vision, numbness of lips and tongue apex. Glucose molar concentration in blood was 2,5 mmol/l. What complication has developed in the patient? (2014, N 109, TB)

**+Hypoglycemic coma**

Hyperosmolar coma

Hyperglycemic coma

Hyperketonemic coma

Uremic coma

89.The 40-year-old patient has been diagnosed with gastric ulcer, disease symptoms making reappearance after prolonged period of dormancy. How can this kind of disease progression be qualified? (2014, N 110, TB)

**+Relapse**

Remission

Recovery

Latent period

Prodromal stage

90.The 55-year-old female patient has developed a case of acute pancreatitis caused by greasy food. What is the main pathogenesis step of this disorder? (2014, N 111, TB)

**+Premature activation af enzymes in gland ducts and cells**
Pancreatic juice deficiency
Low bile production in liver
Fats digestion disruption
Acute bowel obstruction

91.As the result of taking herbal medicine the 30-year-old patient has developed anaphylactic allergic reaction and blood leukocytosis. What kind of leukocytosis is characteristic of this case? (2014, N 112, TB)
**+Eosinophilia**
Monocytosis
Lymphocytosis
Basophilia
Heutrophilia

92.Milk intake has resulted in the one-year-old child having diarrhea and abdominal distension. What enzyme deficiency does the child have? (2014, N 115, TB)
**+Lactase**
Maltase
Aldolase
Hexokinase
Glycosidase

93.The 56-year-old patient has developed megaloblastic anemia in the course of alcoholic cirrhosis. What vitamin deficiency is the main cause of anemia in this patient? (2014, N 116, TB)
**+Folic acid**
Lipoic acid
Biotin
Thiamine
Pantothenic acid

94.The dispensing chemist's arterial pressure has increased (160/110 mm Hg) due to his conducting long-term analytical analysis (neurosis). What neurohumoral regulation changes can cause increased arterial pressure in the given case? (2014, N 133, TB)
**+Sympathoadrenal system activation**
Activation of aldosterone producing and secretion
Renin-angiotensin system activation
Kallikrein-kinin system activation
Sympathoadrenal system inhibition

95.The 13-year-old female patient having suffered from measles complains of dry mouth, thirst, body weight loss, polyuria, her glucose concentration in blood is 16 mmol/l. What disease can be suspected? (2014, N 141, TB)

**+Type I pancreatic diabetes**

Type II pancreatic diabetes

Diabetes insipidus

Steroidogenic diabetes

Glycogenosis

96.The patient with mushroom poisoning has developed the following symptoms: yellow coloring of skin and sclera, dark-colored urine. Hemolytic jaundice was diagnosed. What pigment causes such coloring of the patient's urine? (2014, N 142, TB)

**+Stercobilin**

Conjugated bilirubin

Biliverdin

Unconjugated bilirubin

Verdohemoglobin

97.The patient has been admitted to the hospital with complaints of general fatigue, headache, lumbago, edema of face and extremities. Urine analysis revealed proteinuria, hematuria and cylindruria. What is the main pathogenetic mechanism of edema formation during glomerulonephritis? (2014, N 168, TB)

**+Decrease of oncotic blood pressure**

Increase of vascular permeability

Increase of hydrodynamic blood pressure

Hormonal disbalance

Lymph flow disruption

98.Fluorography examination of the 59-year-old patient has revealed welldefined shadow, which is characteristic to tumor, in the lower part of the left lung. What trait is characteristic of benign tumor? (2014, N 171, TB)

**+Expansive growth**

Metastasis

Cancer cachexia

Invasion in surrounding tissues

Infiltrating growth

99.After taking phenacetin a patient developed acute sore throat, fever. Examination enabled doctors to make a diagnosis of necrotic angina and

agranulocytosis. Agranulocytosis can be characterized by a decrease in the amount of the following WBCs: (2013, 2012)
**+Neutrophils**
Eosinophils
Basophils
Lymphocytes
Monocytes

100.A patient has been hospitalized for chronic heart failure. Objectively: skin and mucous membranes are cyanotic, the patient has tachycardia, tachypnea. What type of hypoxia has developed in the patient? (2013)
**+Circulatory**
Anemic
Hemic
Tissue
Hypoxic

101.A patient with a diagnosis of drug poisoning has been admitted to the resuscitation department. The patient is in grave condition. Respiration is rapid, superfi- cial, with periods of apnea (Biot's respiration). What was the main cause of the development of periodic breathing in the patient? (2013)
**+Inhibition of the respiratory center function**
Impaired function of spinal cord motoneurons
Impaired function of the neuromuscular system
Diminished chest mobility
Pulmonary dysfunction

102.On the 2nd day after developing acute inflammation of the knee joint, the patient exhibits the joint enlargement, swelling of the skin. At what stage of inflammation are these signs typically observed? (2013)
**+Exudation**
Alteration
Proliferation
Regeneration
Sclerosis

103.A patient had been diagnosed with right lung cancer and administered surgical treatment. After right-sided pulmonectomy the patient developed evident dyspnea. What form of respiratory failure developed in this patient? (2013)
**+Pulmonary restrictive**
Central
Peripheral

Pulmonary obstructive
Thoracodiaphragmal

104.A 22-year-old male was stung by bees, the affected region became hyperemic and edematous. What is the leading mechanism of edema development in this patient? (2013)
**+Increased permeability of the capillaries**
Decreased hydrostatic blood pressure in the capillaries
Increased oncotic pressure of tissue fluid
Impaired lymphatic efflux
Reduced oncotic pressure of blood

105.A patient with chronic renal failure exhibits azotemia, hypo- and isosthenuria. What is the main factor in the pathogenesis of these symptoms in the patient? (2013)
**+Reduction of existing nephrons mass**
Increase in glomerular filtration rate
Reduction of tubular secretion
Disturbance of the permeability of the glomerular membrane
Decrease in glomerular filtration rate in each nephron

106.A hospital admitted a patient with arterial hypertension induced by renal artery stenosis. The patient complains of persistent nausea and headache. The main element in the pathogenesis of hypertension is the activation of the following system: (2013, 2012)
**+Renin-angiotensin**
Hypothalamic-pituitary
Kallikrein-kinin
Sympathoadrenal
Parasympathetic

107.Addison’s (bronze) disease is treated with glucocorticoids. Their effect is provided by the potentiation of the following process: (2013)
**+Gluconeogenesis**
Glycolysis
Pentose phosphate cycle
Glycogenolysis
Ornithine cycle

108.After an insulin injection a 45-yearold female with a long history of diabetes mellitus has developed weakness, paleness, palpitation, anxiety, double vision,

numbness of lips and the tip of tongue. Blood glucose is at the rate of 2,5 mmol/l. What complication has developed in the patient? (2013, 2012)
**+Hypoglycemic coma**
Hyperosmolar coma
Hyperglycemic coma
Hyperketonemic coma
Uremic coma

109.A 45-year-old male patient was diagnosed with stomach ulcer. After the conservative treatment the pain and heartburn disappeared, the function of the gastrointestinal tract was normalized. Endoscopic examination of stomach revealed cicatrization of the ulcer. Qualify this course of the disease: (2013)
**+Remission**
Relapse
Latent period
Recovery
Prodromal stage

110.An older patient exhibits low levels of red blood cells and hemoglobin in blood, but the color index is 1,3. Blood smear analysis revealed megaloblasts. What type of anemia is observed in this case? (2013)
**+$B_{12}$-folic acid deficiency**
Iron-deficiency
Acquired hemolytic
Hereditary hemolytic
Chronic posthemorrhagic

111.In response to the administration of protein drugs, a patient developed an allergic reaction. The development of the allergic reaction is caused by the increased synthesis of the following compound: (2013)
**+Histamine**
Choline
Adrenaline
Histidine
Serotonin

112.A patient with acute myocarditis exhibits rapid fatigability, shortness of breath, edemata of legs, hepatomegaly. Classify the type of heart failure by the mechanism of its development: (2013)
**+Myocardial**
Overload
Compensated

Subcompensated
Combined

113.After a contact with a person having an infectious diseases, the disease pathogens entered the patient's body and started to multiply, but the symptoms of the disease were not yet observable. What period of the disease is this typical for? (2013)
**+Latent**
Prodromal
Manifest illness stage
Clinical outcome
Relapse

114.A male patient developed fever up to $40^0$C, there are vomiting, diarrhea, the patient is in grave condition. Blood osmolality is 270 mOsm/l. What disorder of water-salt metabolism is observed in the patient? (2013)
**+Hypoosmolar hypohydration**
Isoosmolar hypohydration
Hyperosmolar hypohydration
Isoosmolar hyperhydration
Hypoosmolar hyperhydration

115.A male received a radiation dose of 30 Gy. He presents with necrotic angina, disorders of the gastrointestinal tract. Blood tests revealed anemia, leukopenia and thrombocytopenia. What phase of acute radiation syndrome is observed in the patient? (2013)
**+Manifest illness stage**
Primary reactions
Latent
Outcome of disease

116.As a result of hypothermia a male patient developed acute diffuse glomerulonephritis. What type of allergic reaction caused damage to the glomerular capillaries in the patient? (2013)
**+Immunocomplex**
Anaphylactic
Cytotoxic
Cell-mediated
Stimulating

117.As a result of an emergency situation (shipwreck) a man had to drink sea (salty) water. What form of water-salt imbalance may occur in this case? (2013)

**+Hyperosmolar hyperhydration**
Hypoosmolar hyperhydration
Hypotonic hyperhydration
Isoosmolar hyperhydration
Isotonic hyperhydration