

## KROK - 1

1

A patient is detected with increase of resistance of blood outflow from the left ventricle, which led to the energy-consuming compensative mechanism. How is it called?

- A \* Homeometric
- B Atonic
- C Heterometric
- D Asthenical
- E Metabolic

2

Diabetic patients has coma which developed after introduction of insulin. Level of glucose in blood is 2.35 mmol/liter. What kind of coma is it?

- A \* hypoglycemic
- B Laktatsidemic
- C hyperosmolar
- D Ketoacidotic
- E hyperglycemic

3

A patient is detected with disturbed peripheral blood circulation that implies limitation of arterial inflow. It is accompanied by blanching of this skin area, decrease of local temperature. How is called such a disturbance?

- A \* Ischemia
- B Venous hyperemia
- C Arterial hyperemia
- D Stasis
- E Lymphostasis

4

Diabetic patients has coma which developed after introduction of insulin. Level of glucose in blood is 2.35 mmol/liter. What kind of coma is it?

- A \* hypoglycemic
- B Laktatsidemic
- C hyperosmolar
- D Ketoacidotic
- E hyperglycemic

5

The patient complained of swelling on the feet. The doctor revealed: proteinuria, hypertension, hypoproteinemia, and hyperlipidemia. How is named this syndrome?

- A \* Nephrotic
- B anemic
- C hypertensive
- D Loss
- E Urinary

6

In blood of the patient leukocytosis, lymphocytosis, anemia, cell Gumprecht are found. What kind of illness should think a doctor?

- A \* Chronic lymphocytic leukemia

- B** acute myeloid leukemia
- C** lymphogranulomatosis
- D** Multiple myeloma
- E** Infectious mononucleosis

7

The blood analyses of a patient who 5 years ago underwent gastrectomy revealed: anemia, cell-color ratio=1,3, megalocytes, megaloblasts, Jolly bodies. What kind of anemia is developing?

- A** \* B<sub>12</sub>- deficiency
- B** Aplastic
- C** Iron-deficiency anemia
- D** Hemolytic
- E** Post hemorrhagic

8

A patient suffering from chronic glomerulonephritis has proteinuria and hematuria. What kind of disturbance of kidneys' functions does proteinuria indicate on?

- A** \* Disturbance of glomerular filtration
- B** Disturbance of canalicular secretion
- C** Disturbance of canalicular reabsorption
- D** Disturbance of canalicular secretion and reabsorption
- E** Disturbance of glomerular filtration and reabsorption

9

The laboratory blood examination of a patient suffering from chronic glomerulonephritis revealed hypochromic anemia and hypoproteinemia. What is the most possible mechanism of anemia development?

- A** \* Reduction of erythropoietin synthesis
- B** Proteinuria
- C** Hypoproteinemia
- D** Hematuria
- E** Disorder of hemoglobin synthesis

10

Patients 40 years old suffers from coronary heart disease and vascular disease of legs (occlusive disease). During the examination of the lower extremities revealed pallor and dystrophic changes of the skin, reducing the local temperature, disturbance of sensitivity and pain. What kind of disturbance of peripheral blood circulation the patient has?

- A** \* occlusion ischemia
- B** Compression ischemia
- C** angiospastic ischemia
- D** venous hyperemia
- E** Arterial hyperemia

11

A patient has excess of glucose in urine. The blood glucose level and the arterial tension are normal. What mechanism does take place in this case?

- A** \* Disorder of glucose reabsorption in nephron tubules
- B** Insulin hypoglycemia
- C** Hyperfunctioning of medulla of adrenals glands
- D** Hyperfunctioning of thyroid gland
- E** Hyperfunctioning of cortex part of adrenals glands

12

A patient of 45 years old complains of nausea, eructation smelling “rotten”, vomiting, wind. The symptoms: body loss weight, xerodermia (skin and mucous tunic’s dryness). Digestive juices lack free hydrochloric acid and enzymes. What kind of disturbance of stomach secretion takes place?

- A \* Achylia
- B Achlorhydria
- C Hypochlorhydria
- D Hypoaciditas
- E Anaciditas

13

A victim of automobile accident has been to a resuscitation department. Evidently: the patient is unconscious, the arterial pressure is 90/60, there is a high concentration of creatinine and urea, the daily diuresis is 60 ml. What kind of disturbance of daily diuresis does the patient have?

- A \* Anuria
- B Polyuria
- C Oliguria
- D Pollakiuria
- E Nycturia

14

A sick woman of 54 years suffering from stomach ulcer complains of sudden asthenia and shortness of breath while having the least physical activity. In the blood analysis: red blood cells -  $1,44 \times 10^{12}/l$ , hemoglobin - 66 g/l, color index – 1,4. What kind of pathology of blood system is characterized by the revealed changes in blood composition?

- A \* B<sub>12</sub>-deficiency anemia
- B Iron-deficiency anemia
- C Acute post hemorrhagic anemia
- D Acquired hemolytic anemia
- E Chronic posthemorrhagic anemia

15

A patient suffering from chronic left ventricular failure (left sided failure) complains of breathlessness, tachycardia, and cyanosis of lips. What kind of hypoxia does the sick have?

- A \* Circulatory
- B Respiratory
- C Hemic
- D Tissue
- E Mixed

16

During the preventive examination of a 13-years’ girl there were revealed pallor of skin, complains of lowering of progress at school, tired. Evidently: dyspnea at minimum loading, tachycardia. The blood analysis: hypochromic anemia. What kind of hypoxia does the patient have?

- A \* Hemic
- B Circulatory
- C Respiratory
- D Mixed

**E** Tissue

17

From the pleural cavity of a patient the exudation is obtained: protein - 34g/l, cells 3600/mkl, predominant neutrophils, pH-6,8. What kind of exudates does the patient have?

- A** \* Purulent
- B** Mixed
- C** Fibrinogenous
- D** Hemorrhagic
- E** Serous

18

In patient due to acute blood loss, which composed 40% of blood volume, arose anuria. Which is the main mechanism of the appearance of it?

- A** \* Decrease of hydrostatic pressure on the capillaries wall
- B** Increase of the oncotic blood pressure
- C** Increase of the pressure in the glomerulus capsule
- D** Decrease of a quantity of the functioning glomerulus's
- E** Pressure decrease in the glomerulus's capsule

19

A patient suffers from tumor head of pancreas, which covered common bile duct, leading to the increase of bile pressure. What is the pathologic syndrome?

- A** \* Obstructive jaundice
- B** Portal hypertension
- C** Hemolytic jaundice
- D** Hepatocellular jaundice
- E** Acute liver failure

20

I. Mechnikov, studying inflammatory process, described certain regularity of leucocytes emigration to focus of inflamed tissue. Cells emigrate in such order:

- A** \* Neutrophilic granulocytes, monocytes, lymphocytes
- B** Monocytes, lymphocytes, neutrophilic granulocytes
- C** Neutrophilic granulocytes, lymphocytes, monocytes
- D** Monocytes, neutrophilic granulocytes, lymphocytes
- E** Lymphocytes, monocytes, neutrophilic granulocytes

21

A child with pronounced hypotrophy has edemas of the lower extremities, ascites. What is the leading link of the pathogenesis of cachectic edema?

- A** \* Oncotic pressure reduction
- B** Hydrostatic pressure increase
- C** Increase of oncotic pressure of extracellular fluids
- D** Increase of permeability of vascular wall
- E** Disorder of lymph circulation

22

The patient appeared anuria. The level of blood pressure was 50/20 mmHg. What kind of disturbance of urine formation caused the acute decrease in urine excretion?

- A** \* glomerular filtration
- B** obligate reabsorption

- C Optional reabsorption
- D tubular secretion
- E All of these processes

23

The height of 10-years' old child is 178 sm, he weights 64 kg. With the disturbance of what gland is it connected?

- A \* Hypophysis
- B Thyroid gland
- C Sexual glands
- D Adrenal glands
- E Parathyroid glands

24

A 38-year's old woman suffering from metrorrhagia was taken to the reception department of hospital. What blood changes occur in the woman's organism?

- A \* Decrease of hematocrite
- B Increase of hematocrite
- C Erythrocytosis
- D Monocytosis
- E Leukocytosis

25

The punctuate extravasations (petechia) on the skin emerged after applying a plait. It is connected with the disturbance of functions of cells:

- A \* Platelets
- B Monocytes
- C Eosinophils
- D Neutrophils
- E Lymphocytes

26

During the examination of a patient, in the blood serum there was revealed the increased quantity of low-density lipoproteins. What disease is supposed to emerge?

- A\* Atherosclerosis
- B Kidney injury
- C Pneumonia
- D Acute pancreatitis
- E Gastritis

27

In the period of grass blossoming, a 45-year's old woman began suffering from acute inflammatory disease of the upper air passages and eyes: hyperemia, edema, mucous allocation. What kind of leukocytosis will be typical in this case?

- A \* Eosinophilia
- B Basophilia
- C Neutrophilia
- D Monocytosis
- E Lymphocytosis

28

A patient suffering from Itsenko-Cushing syndrome has strong hyperglycemia and glucosuria. The synthesis and secretion of which of the following hormones keeps on increasing in this case?

- A\* Cortisol
- B Adrenalin
- C Glucagon's
- D Thyroxin
- E Aldosteron

29

After eating of vegetables, which were saturated with nitrates, a child began suffering from hemic hypoxia. Which of the following substances in the blood cause it?

- A\* Methemoglobin
- B Desoxyhemoglobin
- C Oxyhemoglobin
- D Carboxyhemoglobin
- E Carbhemoglobin

30

A patient who is resident in the Highlands, has hemoglobin content in blood 180 g/l. Increasing of hemoglobin synthesis in chronic hypoxia occurs due to stimulation of bone marrow by:

- A \* erythropoietin
- B adrenaline
- C noradrenaline
- D vasopressin
- E thyroxine

31

A patient suffering from chronic renal insufficiency complains of appetite loss, vomiting, diarrhea, general weakness, excruciating skin itch. Which is the main mechanism of the appearance of these symptoms?

- A \* Accumulation of products of nitrogen metabolism
- B Renal acidosis
- C Carbohydrate exchange disturbance
- D Protein exchange disturbance
- E Water-electrolytic exchange disturbance

32

As a result of the spine injury a patient has no voluntary movements of legs. The disturbance detected is named:

- A \* Paraplegia
- B Upper paraplegia
- C Monoplegia
- D Hemiplegia
- E Low paresis

33

After surgical intervention for diffuse toxic goiter in a patient having fibrillar muscle twitching, seizures, clonic seizures. What is probably led to the development of symptoms in a patient?

- A \* Removal of parathyroid glands
- B Activation of adrenal glands
- C larynxes glands
- D Hypofunction pituitary glands

**E** Activation of gonads

34

When greasing an ear of a rabbit with turpentine it turns red and increase of blood circulation is observed. Which type of arterial hyperemia appears in this case?

- A**\* Neurotonical
- B**Neuroparalytic
- C**Metabolic
- D**Reactive
- E**Work

35

After consumption of phenacetin the patient has pain in the throat and fever. He has also necrotic angina and agranulocytosis. Reducing what kind of leukocytes is characteristic of agranulocytosis?

- A** \* neutrophils
- B** monocytes
- C** eosinophils
- D** basophils
- E** lymphocytes

36

The rat, which during the day was in the immobilization chamber, the autopsy revealed erosion of the stomach. What kind of hormones could cause erosion in this case?

- A** \* Glucocorticoids
- B** mineralocorticoid
- C** Insulin
- D** Glucagon
- E** Estrogens

37

When an abscess in buckle cavity is cut yellow-green discharge appear. What cells are always present and prevail in purulent exudates?

- A**\* Neutrophiles
- B**Eosinophiles
- C**Basophiles
- D**Lymphocytes
- E**Erythrocytes

38

Poplar seed tufts got onto the patient's sclera and caused irritation and reddening in the eye. Which local circulatory disturbance took place?

- A** \* Arterial hyperemia
- B** Embolism
- C** Ischemia
- D** Venous hyperemia
- E** Thrombosis

39

People are suffering from a carbon monoxide poisoning during a fire indoors. What type of hypoxia do the people suffer from?

- A** \* Haemic

- B** Circulatory
- C** Hypoxic
- D** Respiratory
- E** Primary tissue

40

The patient prolonged suffering stomach ulcer is noted sharp exhaustion (cachexia), the pallor of the skin, weakness, the loss of appetite, aversion for the meat food. The biopsy of gastric mucosa is revealed cellular atypism. For what pathology are characteristic given symptoms?

- A** \* Malignant tumor of the stomach
- B** Helminthes invasion
- C** The benign tumor of stomach
- D** Polypusis
- E** Hypertrophic gastritis

41

In newborn, which was born from the third pregnancy of rhesus- negative mother is observed jaundice, the symptoms of irritation CNS, and anemia. What form of jaundice in newborn?

- A** \* Hemolytic
- B** Toxic
- C** Parenchymatous
- D** Mechanical
- E** Parasitic

42

A patient 42 years old has pallor of skin, weakness, and lymphadenopathy. In blood leukocytosis, absence of transitional forms of leukocytes (hiatus leukemicus), accelerated ESR (erythrocyte sedimentation rate) are found. Which disease is described?

- A** \* Acute leukemia
- B** Chronic leukemia
- C** Erythromyelosis
- D** Neutrocytosis
- E** Leukemic response

43

All vascular disruptions of the patient H. are accompanied with a continuous unceasing bleeding. Deficit of the VIII blood coagulation factor has been detected. Which disease does the patient suffer from?

- A** \* Hemophilia
- B** Purpura rheumatic
- C** Thrombocytopenic purpura
- D** Anemia
- E** Radiation disease

44

The patient due to hemorrhage (stroke) into the brain has decrease the active motions of left arm and leg. The tone of muscles of these extremities is increased, their spinal reflexes are sharply intensified, and the zones of reflexes are extended. Name the form of the disorder of central nervous system in the patient:

- A** \* Central paralysis
- B** Sluggish paralysis
- C** Peripheral paralysis

- D The spinal shock
- E Reflector paralysis

45

A patient after stomach resection has weakness, skin pallor, large liver and spleen mass. Megaloblasts and megalocytes and hyperchromia (color index 1,3) are found in peripheral blood. Which type of anemia does the patient have?

- A \* B<sub>12</sub> -deficiency
- B Hemolytic
- C Hypoplastic
- D Iron-deficiency
- E Toxic

46

Acute skin pallor and trembling of extremities appear if the person is frightened. Which type of ischemia is present in this case?

- A \* Angiospastic
- B Compression
- C Obstruction (due to blood clot organization)
- D Metabolic
- E Obstruction (due to the thickening of vascular wall)

47

A patient has persistent tachycardia, exophthalmos, irritability, basal metabolism is increased. Which dysfunction can cause such changes?

- A \* Hyperfunction of thyroid gland
- B Hypofunction of thyroid gland
- C Hypofunction of parathyroid glands
- D Hyperfunction of parathyroid glands
- E Hypofunction of adrenal glands

48

A patient has persistent bradycardia, moderate hypotension, edema, basal metabolism is decreased. Which dysfunction can cause such changes?

- A \* Hypofunction of thyroid gland
- B Hyperfunction of thyroid gland
- C Hypofunction of parathyroid glands
- D Hyperfunction of parathyroid glands
- E Hypofunction of adrenal glands

49

A patient suffering from chronic cardiac insufficiency has edema of cruses (legs). Which of the pathogenesis factors of edema is present?

- A \* Increase of hydrostatic pressure in capillaries
- B Decrease of blood plasma oncotic pressure
- C Increase of oncotic pressure in tissues
- D Decrease of hydrostatic pressure in capillaries
- E Increase of osmotic pressure in tissues

50

Many cases of alimentary starvation are accompanied with moderate edema. Which of the pathogenesis factors of edema is the main one in this case?

- A \* Decrease of blood plasma oncotic pressure
- B Increase of hydrostatic pressure in capillaries
- C Decrease of hydrostatic pressure in tissues
- D Increase of oncotic pressure in intercellular liquid
- E Increase of osmotic pressure in intercellular liquid

51

At the patient suffer from a pleuritis at carrying out of a pleural puncture. There is received a liquid - transparent, without a smell. What type of exudates is received at a puncture?

- A \* Serous
- B Hemorrhagic
- C Purulent
- D Fibrinous
- E Putrefactive

52

A woman 45 years old suffers from prolonged uterine bleeding, there is a general weakness, shortness of breath, tachycardia, pain in the heart. Analysis of blood: red blood cells - 3 g/l, Hb - 70 g/l, color index - 0,7. In blood smears dominated hypochromic erythrocytes, microcytes.

What type of anemia the patient has?

- A \* Iron-deficient anemia
- B B<sub>12</sub>-deficient anemia
- C Hemolytic
- D disease Minkowski-Shofar
- E Proteinodeficiency

53

Patient of 38 years old suffered from hepatitis and continued to take alcohol. There is cirrhosis of a liver complicated by ascites and edema of the low extremities. What changes of blood structure are the main in development of edema?

- A \* Hypoalbuminemia
- B Hypoglobulinemia
- C Hypercholesterolemia
- D Hypotalassiumemia
- E Hypoglycemia

54

The child of 5 years old, having been come back from a kindergarten, has felt weakness, headache, increase the temperature up to 37,5<sup>0</sup>C. Which period of illness is characterized these signs?

- A \* Prodromal
- B Recover
- C Latent
- D Incubation
- E Period of expressed manifestation

55

The patient 56 years old, complains of pain in the joints of hands, especially at night, and the restriction of motor functions. OBJECTIVE: there are deformed, painful swelling of affected joints. In blood and urine revealed increased level of uric acid. What is the disease developed in a patient?

- A \* Gout
- B pellagra

- C Phenylketonuria
- D Alkaptonuria
- E Tyrosinemia

56

In a patient annually at spring and in the beginning of summer during the period of flowering plants arise acute catarrhal inflammation of eyes mucous layer and a nasal mucous membrane of emptiness of a nose which is an allergy manifestation. It is possible to carry these displays to what type of allergic reactions?

- A \* Anaphylactic
- B Cytotoxic
- C Immune complexes
- D Cellular-mediated
- E Receptor - mediated

57

A woman addressed to a doctor with complaints of feet pains which appear at the evening, feet puffiness and shins. Objectively: a skin on the feet is cyanotic color, cold to the touch. What type of infringement of peripheral blood circulation does the patient have?

- A \* Venous hyperemia
- B Stasis
- C Arterial hyperemia
- D Ischemia
- E Thrombosis

58

There are researching a blood picture of a group of climbers participating in ascension on top. It has been noted increase concentration of hemoglobin and erythrocytosis (increase concentration of RBC). What type of hypoxia has led to stimulation of RBC in bone marrow?

- A \* Hypoxic
- B Normobaric
- C Hemic
- D Circulatory
- E Tissue

59

A patient suffering from a chronic calculus cholecystitis complaints to acute pains in right abdominal region, an itch and yellowness of skin, multiple micro point hemorrhages, saponification and discolored excrement (steatorrhea). What type of jaundice is observed in the patient?

- A \* Mechanical
- B Hemolytic
- C Parenchymatous
- D Suprahepatic
- E Hepatic

60

Patient K., 35 years old, complains of a strong constant thirst, headache, irritability. Number of liquid drunk per day is 9 liters. Daily urine output increased. The diagnosis is diabetes insipidus. Disturbance of which hormone caused this pathology?

- A \* vasopressin
- B aldosterone

- C glucocorticoids
- D catecholamine
- E renin

61

A patient with a pneumonia at change of temperature within days rates fluctuated within 39-40 °C. What kind of a fever is observed?

- A \* High
- B Subfebril
- C Hyperpyretic
- D Moderated
- E Normal

62

A patient suffers viral hepatitis appeared: ascites, jaundice, an itch, edema of the bottom extremities, apnea. What kind of jaundice is observed in the patient?

- A \* Parenchymatous
- B Obturation
- C Hemolytic
- D Mechanical
- E Suprahepatic

63

Due to rupture of spleen a patient has emerged massive internal bleeding with signs of hypoxia. Which of the following organs are most sensitive to hypoxia?

- A \* cortex
- B Stomach
- C Kidney
- D Lungs
- E Muscle

64

The patient complains of fever, weight loss, irritability, tachycardia, exophthalmos. What kind of endocrinopathies is characterized?

- A \* thyrotoxicosis
- B hypofunction of thyroid glands
- C hyperaldosteronism
- D Hypoaldosteronism
- E hypercortisism

65

The introduction to a frog hypodermically 1 ml 1% of a solution of potassium cyanide developed hypoxia and then death. What kind of hypoxia is observed?

- A \* Tissue
- B Hemic
- C Circulatory
- D Respiratory
- E Hypoxic

66

The patient has decrease of urine output to 800 ml per day. How is named this change of diuresis?

- A \* Oligouria
- B Polyuria
- C Pyuria
- D Proteinuria
- E anuria

67

The patient had subclavian artery injury (massive bleeding). After 20 days there was made a blood test. What are the indicators of blood characterized an increasing eritropoesis?

- A \* reticulocytosis
- B anisocytosis
- C poikilocytosis
- D Anizohromia
- E Hypohromiya

68

A woman of 55 years old suffers from kidney insufficiency has arterial pressure 170/100 mm Hg. Which excessive activation from mentioned below systems causes prof increase of arterial pressure?

- A \* Renin - angiotensin - aldosteron
- B Simpatico-adrenal
- C Hypothalamus-hypophysis
- D Central nervous system
- E Callecrinin - kinin

69

A part of a skin which was exposed to high temperature has reddened. Name type of disturbance of local blood circulation in a focus acute inflammation which causes symptom "rubor".

- A \* Arterial hyperemia
- B Ischemia
- C Venous hyperemia
- D Stasis
- E Thrombosis

70

In a 4 year old boy the glucose maintenance in blood plasma is 12 mmol/L. What can cause it?

- A \* Deficiency of insulin
- B Deficiency of cortisol
- C Deficiency of glucagon's
- D Deficiency of somatothropin
- E Deficiency of corticotrophins

71

At a survey of the patient the doctor has suspected syndrome Itsenko-Kushing. What level increase of the substance in blood of the patient will confirm the doctor assumption?

- A \* Cortisol
- B Retinol
- C Tocopherol
- D Adrenaline
- E Cholesterol

72

The man of 40 years old complains of general weakness, a headache, fever, cough with allocation sputum, short wind. After survey and inspection the diagnosis is suffered: Local pneumonia. What type of hypoxia is observed at the patient?

- A \* Respiratory
- B Circulatory
- C Hemic (blood)
- D Tissue
- E Hypoxic

73

The patient 58 years old complained of a persistent increase in blood pressure. Clinical examination revealed he had chronic renal insufficiency with disturbance of renal blood flow. Activation of a what kind of regulatory mechanism led to increased blood pressure in a patient?

- A \* Renin-angiotensin system
- B parasympathetic nervous system
- C sympathetic nervous system
- D Cardiovascular
- E Central Nervous System

74

A patient with the diagnosis "acute stomach" was delivered to the clinic. The doctor assumed acute appendicitis and appointed the urgent blood analysis. What indicator will confirm presence of acute inflammation in the body?

- A \* Leukocytosis
- B Leucopenia
- C Eosinophilia
- D Erythrocytosis
- E Erythropenia

75

Due to neonatal trauma in newborn are noted the limitation of the motions of right upper extremity, the hypo-reflection, muscular atrophy. What form of motions disturbances does include the data of a change in the central nervous system?

- A \* Peripheral (sluggish) paralysis
- B Neuritis
- C Central paralysis
- D Myasthenia
- E Bulbar paralysis

76

A patient suffers from kidneys insufficiency has liquid delay in an organism, oliguria is marked. What disturbance of blood volume circulation accompanies such pathology?

- A \* Oligocytemic hypervolemia
- B Oligocytemic hypovolemia
- C Polycytemic hypovolemia
- D Polycytemic hypovolemia
- E Simple hypovolemia

77

A patient has metabolic acidosis, nitrogenemia, gray colored skin, an itch, an ammonia smell, function disturbance of organs. Name this status.

- A** \* Uremia
- B** Acute kidneys insufficiency
- C** Tubulopathia
- D** Glomerulopathia
- E** Nephritic colic (spasm)

78

The patient 37th years old has arrived in clinic with an attack of a bronchial asthma. What type of breath is observed thus?

- A** \* Expiratory dyspnoe
- B** Apnoe
- C** Inspiratory dyspnoe
- D** Gasping-breathing
- E** Hyperpnoe

79

After injection of novocaine the patient has anaphylactic shock. What antibodies are responsible for the development of this allergic reaction?

- A** \*Ig E
- B** Ig A
- C** Ig D
- D** Ig M
- E** Ig G

80

A child as a result of getting hot water on the hand got burn. The burnt skin is bright red. What infringement of local blood circulation is on a burn place?

- A** \* Arterial hyperemia
- B** Thrombosis
- C** Venous hyperemia
- D** Stasis
- E** Embolus

81

A women 40 years old for a long period of suffering from menorrhagia. In the analysis of blood Hb - 90 g/l, erythrocytes. -  $3,9 \times 10^{12}/l$ , CI - 0,69. What is the main cause of hypochromic anemia?

- A** \* Loss of iron from the blood
- B** increased use of iron
- C** disturbance of iron absorption in the body
- D** Deficiency Vitamin B<sub>12</sub>
- E** Insufficient intake of iron from food

82

Man stung by a bee. The region of it has any redness, swelling. What is the main mechanism of development of edema?

- A** \* Increased capillary permeability
- B** Reduced oncotic pressure of blood
- C** Increased hydrostatic pressure of blood
- D** Reducing the osmotic pressure of blood
- E** disturbance of lymph output

83

The patient, 67 years old has swollen legs by the end of the day. During the night, these swelling disappeared. What type of edema appeared in the patient?

- A \* Cardiac
- B Kidney
- C liver
- D Hungry
- E allergies

84

The patients 38 years old has fever (to 39.0 C). What type of white blood cells produces a substance that increases the temperature of the body?

- A \* Monocytes
- B Eosinophils
- C Basophils
- D Neutrophils
- E Lymphocytes

85

In a patient the doctor has shown obstructive type of respiratory insufficiency. Name the disease in which appears such respiratory insufficiency:

- A \* Bronchial asthma
- B Pneumonia
- C Exudative pleuritis
- D Pneumoconiosis
- E Pneumothorax

86

A patient suffers from bone-cerebral form of radiation illness. He was such changes of blood picture: leukocytes  $2 \times 10^9/L$ , lymphopenia, erythrocytes  $3,0 \times 10^{12}/L$ , Hb-52 g/L, thrombocytes  $10^5 \times 10^9/L$ , blood coagulation was lowered. What period of radiation disease patient has?

- A \* Expressed manifestations of disease
- B Relapse
- C Outcomes of disease
- D Prodromal period
- E Latent period

87

At allergic reactions of immediate type arises degranulation of tissue basophiles which release biologically active substances. One of such is:

- A \* Histamine
- B Acetylcholine
- C Prefibrinilysin
- D Factor Hageman
- E System of complement

88

A worker of asphalt plant 57 years old complained of weakness, cough with sputum mixed with blood, pain in the chest. He suffers from diagnosis: cancer of the lungs. Name the first stage of carcinogenesis:

- A \* Transformation
- B Promotion

- C Activation
- D Progression
- E Induction

89

The woman of 56th years old complains of indurations in a mammary gland which was formed one month ago and quickly increases in sizes. Objectively: formation is connected with surrounding tissues, it's hilly and little unhealthy morbid. Name features which promote infiltrating growth of a malignant tumor:

- A \* Absence of the contact braking
- B Enlarged formation tight junction
- C Enlarged formation of keylons
- D Appearance of embryonic antigens
- E Increase of the contact braking

90

A patient with mitral buttonhole has a compensated form of cardiac failure. Which urgent compensation model works in this case?

- A \* Homeometric
- B Heterometric
- C Myocardial hypertrophy
- D Myogenic dilatation
- E Circulating blood volume increase

91

The patient of 54 years after significant psycho-emotional stress suddenly perceived acute pain behind the breast bone with the irradiation into the left arm, left side of neck, fear of death; he was covered with cold then. The intake of nitroglycerine removed pain. Name the disorder of local blood circulation in the heart, which most reliably developed in this case:

- A \* Ischemia
- B Venous hyperemia
- C Embolism
- D Arterial hyperemia
- E Thrombosis

92

A patient has Kussmaul's respiration, acetone offensive breath, eyeballs tone decrease, miotic pupils, dry skin, polyuria, glucosuria, hyperglycemia

- A \* Diabetic
- B Hepatic
- C Aliment dystrophic
- D Hypoglycemic
- E Suprarenal

93

It is known that during fever a rise in temperature occurs which is caused by pyrogens. Which blood cells produce secondary pyrogens?

- A \* Monocytes - macrophages
- B Plasma cells
- C Erythrocytes
- D Thrombocytes
- E Basophiles

94

The patient suffers from acute pneumonia has edema and thickening of lung tissue. Which cells are the first infiltrate zone of inflammation and provide effective protection against bacterial infection?

- A \* Neutrophils
- B Monocytes
- C Platelets
- D Eosinophils
- E Basophils

95

The patient suffers from increase in plasma the level of total bilirubin by the indirect form, in the faeces and urine - a high concentration of stercoobilin, the level of direct bilirubin in the blood is normal. What kind of jaundice patient has?

- A \* Hemolytic
- B Mechanical
- C Gilbert's syndrome
- D parenchymatous
- E physiologic jaundice

96

As a result of a burn a child has hyperemia (redness), small vesicle fined with transparent liquid. What type of liquid are the vesicles filled with?

- A \* Serous exudates
- B Hemorrhagic exudates
- C Purulent effluent
- D Transsudate
- E Mucous exudates

97

The patient 47th years old suffers from pain shock due to hand trauma. Objectively: a condition worse, consciousness confused, skin damp, pale with acrocyanosis. The tachypnea, tachycardia, low arterial pressure is marked. What kind of hypoxia dominates at the patient?

- A \* Circulatory hypoxia
- B Exogenous
- C Hemic hypoxia
- D Tissue hypoxia
- E Respiratory hypoxia

98

A patient suffering from essential hypertension has a blood pressure of 180/110 mm Hg. tachycardia, cardiac borders are extended to the left, and there are damp rattles in the lungs. What signs of urgent compensation of cardiac insufficiency does the patient have?

- A \* Tachycardia
- B Dyspnoea
- C Blood pressure rise
- D Cyanosis
- E Myogenic dilatation

99

After the taking in phenacetin the patient complains of sore throat, impossibility of swallowing. The otolaryngologist diagnosed necrotic tonsillitis. In blood: Hb-130 G/L, RBC- $4,5 \times 10^{12}/L$ , WBC- $3,0 \times 10^9/L$ , among them lymphocytes-75%, Neutrophils-10%, Eosinophils-5%, Monocytes-10%. Define what infringement of white blood cell the patient has?

- A \* Neutropenia
- B Monocytosis
- C Eosinophilia
- D Neutrophilia
- E Lymphopenia

100

A child born by Rh-negative woman (second pregnancy) has yellow-colored skin, pathological reflexes, and convulsions. Concentration of unconjugated (indirect reacting) bilirubin in blood is increased. What type of jaundice does the child have?

- A \* Hemolytic
- B Hepatocellular, with bilirubine increasing disturbance
- C Hepatocellular, with bilirubine conjugation disturbance
- D Hepatocellular, with bilirubine excretion disturbance
- E Mechanical

101

The patient after a car accident has blood pressure 70/40 mm. Hg., diuresis 300 ml of urine. What is the mechanism of oliguria in this case?

- A \* decreases glomerular filtration
- B Increase of glomerular filtration
- C decrease in tubular reabsorption
- D Increased tubular reabsorption
- E Reduced tubular secretion

102

In the blood of leukemia patients in a large number (85%) found leukocyte blast forms, which, when used cytochemical methods gave a positive reaction with peroxidase. What kind of type of leukemia observed in this case?

- A \* Acute myeloid
- B chronic myeloid
- C Acute Lymphoid
- D Chronic Lymphoid
- E undifferentiated

103

A patient 28 years old has hepatic liver failure progressed against the background of viral hepatitis. What changes in blood can be detected?

- A \* Hypoproteinemia
- B Hyperalbuminemia
- C Hyperglobulinemia
- D Blood coagulation increase
- E Hypozotemia

104

A woman working at the factory that produces phenylhydrazine entered a hospital with complaints of general weakness, giddiness, sleepiness. Signs of anemia with high reticulocytosis, anisocytosis and poikilocytosis and presence of single normocytes were detected. What type of

anemia has progressed?

- A \* Hemolytic
- B B<sub>12</sub>-deficiency
- C Iron-deficiency
- D Aplastic
- E Megaloblastic

105

Due to long-stay child outdoors in very warm clothing there is increased body temperature, developed general weakness. Which form disturbance of thermoregulation observed in this case?

- A \* Exogenous hyperthermia
- B Endogenous hyperthermia
- C Fever
- D Thermal Shock
- E Central hyperthermia

106

A patient suffering from pneumonia has a rise of temperature up to 40°C. What type can be attributed to this degree of temperature increase?

- A \* High
- B Subfebrile
- C Mild
- D Hyperpyrexia
- E Hectic

107

In the hospital emergency delivered a patient with heart failure (left side ventricle). Patient has also symptoms of developing pulmonary edema. What is the primary pathogenetic mechanism of edema?

- A \* Hydrodynamic
- B lymphogenous
- C Membranogenny
- D Toxic
- E Colloid-osmotic

108

Patients suffering pneumosclerosis, pH of blood is 7.34. Analysis of blood gas showed the presence of hypercapnia. Investigation of urine showed an increase of its acidity. Which form disturbance of base-acid balance the patient has?

- A \* Gas acidosis
- B excretory alkalosis
- C Gas alkalosis
- D Nongas alkalosis
- E Nongas acidosis

109

Aircraft decompression took place on the height of 10000 m. What type of embolism will the passengers suffer from?

- A \* Gas
- B Air
- C Fat
- D Thromboembolism

**E Foreign body embolism**

110

A man lost in taiga ate only vegetable food for a long period of time which caused edema. What is the main mechanism of edema in this case?

- A** \* Hypoproteinemia
- B** Hypercholesterolemia
- C** Hypoglycemia
- D** Decrease of the amount of microelements in blood
- E** Decrease of the amount of vitamins in blood

111

Kidney transplantation was carried out to a patient. In several days graft rejection (tearing away) took place. Which type of allergic reactions does this complication belong to?

- A** \* Delayed-type
- B** Immediate-type
- C** Anaphylaxis
- D** Idiosyncrasy
- E** Serum sickness

112

There are two main types of tumors in the body: benign and malignant. Which of the following characteristics distinguish malignant tumors from benign?

- A** \* Metastasis
- B** atypia
- C** Uncontrolled growth
- D** progressed growth
- E** Recurrence

113

In the peripheral blood of a patient T. 5% of myeloblasts were detected during a check-up. What is the most probable disease?

- A** \* Leukemia
- B** Anemia
- C** Leukocytosis
- D** Leucocytopenia
- E** DIC -syndrome (disseminated intravascular coagulation syndrome)

114

Patients suffer from I type diabetes mellitus have disturbed carbohydrate metabolism, which manifests by primarily hyperglycemia. What will be the main mechanism of pathogenesis of hyperglycemia in this case?

- A** \* Reducing the permeability of cell membranes to glucose
- B** increased permeability of cell membranes to glucose
- C** formation of antibodies to insulin
- D** Seal basement membrane of renal glomeruli
- E** Inhibition of activity insulinase

115

Patient arrived to reanimation department with feature of alcohol intoxication. What kind of hypoxia did develop for him?

- A** \* Tissue hypoxia

- B** Respiratory hypoxia
- C** Hemic hypoxia (blood)
- D** Circulatory hypoxia
- E** Mixed hypoxia

116

In the experiment the animal was put floridzin then detected in the urine glucose. In this case the indice of glucose in the blood is normal. What is the most probable mechanism of pathological changes occurs in this case?

- A** \* blockade of glucose transporter in the kidney tubules
- B** Damage cells of the pancreas
- C** Increased activity insulinase
- D** Increased filtration of glucose in the glomeruli of the kidneys
- E** antibodies to insulin

117

A patient had a strong pain syndrome after the carried operation. What most probable change of hormonal status can be expected in this case?

- A** \* Elevation of products of catecholamine
- B** Decrease synthesis of mineralocorticoids
- C** Hyper secretion of insulin
- D** Decrease of synthesis of ACTH
- E** Decrease synthesis of glucocorticoids

118

In medicine, use ultraviolet radiation in the form of various physical treatments. Which of these mechanisms underlies the therapeutic effect of ultraviolet rays on the body?

- A** \* Activating the synthesis of vitamin D
- B** activation of drugs
- C** decrease in the synthesis of melanin in the skin
- D** Increased cell division
- E** Activation of lipid peroxidation

119

Preventive vaccination of attenuated microorganisms in the body causes an antibody response to these agents. Which cells will produce antibody?

- A** \* Plasma cells
- B** T-lymphocytes
- C** Macrophages
- D** NK-cells
- E** T-helper

120

Hereditary diseases may be associated with disturbance of the structure and number of chromosomes or genes. Which of the following diseases are monogenic diseases?

- A** \*Hemophilia
- B** type 1 diabetes
- C** Syndrome Shereshevsky
- D** Klinefelter's syndrome
- E** Down Syndrome

121

A child of 9 years old suffering from acute bronchitis. There is decrease body temperature to 37,0 C after week of fever 38,5 C. Name the basic mechanism of decrease body temperature (third stage of fever)

- A \* Dilatation of peripheral vessels
- B Increase of heat production
- C Development of chill
- D Increase of diuresis
- E Increase of respiratory rate (tachypnoe)

122

The patient 47 years old with bilateral pneumonia has disturbance of acid-base balance - compensate gas acidosis. What is the most likely protective and adaptive mechanism supports compensation for acid-base balance in the patient?

- A \* Activation of acidogenesis in the kidneys
- B Hyperventilation of lung
- C decrease reabsorption of bicarbonate in the kidneys
- D Reduced production of lactate in the tissues
- E Increased excretion of acid products through the digestive tract

123

Patients suffering from anemia in the blood smear revealed the presence of oxyphil normocytes. What process in the bone marrow reflects the appearance in the blood oxyphil normocytes?

- A \* Hyperregenerative
- B Normoregenerative
- C Hyporegenerative
- D Ineffective erythropoiesis
- E Lack of regeneration

124

Patient suffers from the chronic myeloleukemia (tumor). During examination: erythrocytes were  $2,3 \times 10^{12}/g/l.$ , hemoglobin was 80 g. /l., leukocytes were  $28 \times 10^9 /g/l.$ , and thrombocytes were  $60 \times 10^9 /g/l.$  With what does pathogenesis of disorders of hemocoagulation for a patient connect?

- A \* With decrease of production of thrombocytes in bone marrow
- B With intensified destruction of thrombocytes in peripheral blood
- C With high expenditure of thrombocytes (during thrombosis)
- D With the redistribution of thrombocytes
- E All of answers are right

125

Long taking of cytostatic medicines by patient brought to onset of necrotic angina. With what changes in composition of leucocytes can it be connected?

- A \* Agranulocytosis
- B Lymphocytosis
- C Neutrophile leucocytosis
- D Lymphopenia
- E Eosinopenia

126

A patient suffers from an acute glomerulonephritis because of oliguria has water retention in organism. What disorder of general blood volume will be detected for a patient in all probability?

- A \* Oligocythemich hypervolemia

- B** Ordinary hypervolemia
- C** Polycythemic hypervolemia
- D** Oligocythemic normovolemia
- E** Ordinary hypovolemia

127

Patient has long bleeding due to extraction of tooth. In the past it was taken in no steroids anti-inflammatory drugs (aspirin) because of rheumatism. What pathogenesis of hemorrhagic syndrome has patient?

- A** \* Trombocytopenia
- B** Activation of fibrinolysis
- C** Thrombocytopenia
- D** Vasopathia
- E** Disorder of formation of prothrombin

128

In patients 70 years old suffers from atherosclerosis of the heart and brain. On examination marked changes in lipid concentration. What kind of increased lipoproteins of blood plasma play an important role in pathogenesis of atherosclerosis?

- A** \* Low-density lipoprotein
- B** Chylomicron
- C** Intermediate-density lipoprotein
- D** High Density Lipoproteins
- E** Very low-density lipoprotein

129

During the work related to the aftermath of the accident at the nuclear power plant, the worker received a dose of ionizing radiation - 6 Gr. (600 x-ray). He complained of general weakness, nausea, dizziness, lability of blood pressure and heart rate, intermittent leukocytosis with lymphopenia. For a period of acute radiation sickness is characterized by the above signs?

- A** \* Prodromal
- B** Expressed manifestations
- C** Latent
- D** Outcomes
- E** remote consequences

130

Patient has acute hypoxia (increase of heart-rates till 124 strokes in a minute, arising of tachypnea) due to overdosing of narcotic drugs during operation. What type of hypoxia takes place in this case?

- A** \* Respiratory hypoxia
- B** Hypoxic hypoxia
- C** Mixed hypoxia
- D** Circulatory hypoxia
- E** Tissue hypoxia

131

In 1 hour the child has had rash all over the body (urticaria) due to usage of polyvitamin in the form of syrup. To what type of allergic reaction do present manifestations belong?

- A** \* Anaphylactic
- B** Immunocomplex
- C** Cytotoxic

- D** Decelerated-type hypersensitivity
- E** Auto allergic

132

A patient had fever ( $t = 39,9^{\circ}\text{C}$ ) but the temperature of body lowering fast to  $36,1^{\circ}\text{C}$ , after the taking of febrifuge drugs. Thus a patient had the expressed general weakness, pallor of skin covers, heart beating faster (tachycardia) and dizziness. What is condition such state of patient?

- A** \* Decrease of arterial pressure
- B** Decrease of glucose in blood
- C** Cerebral edema
- D** Increase of glucose in blood
- E** Low temperature of body

133

Rubor is one of local signs of inflammation. What is condition this feature?

- A** \* Vasodilatation
- B** Increase of capillary permeability
- C** Enhancement of emigration of leucocytes.
- D** Hyperosmia
- E** Acidosis

134

Man wounded a hand during the work at the personal plot. The wound wasn't treated. Soon inflammation developed in place of wound. What is the starting mechanism of inflammation?

- A** \* Primary alteration
- B** Second alteration
- C** Local disturbance of blood circulation
- D** Exudation
- E** Emigration of leucocytes

135

Man wounded a hand during the work at the personal plot. The wound wasn't treated. Soon inflammation with availability of exudates developed in place of wound which contained big quantity of viable and destroyed neutrophils. What type of exudates was arisen?

- A** \* Purulent
- B** Serosal
- C** Fibrinozny
- D** Hemorrhagic
- E** Catarrhal

136

After usage of strawberry a child had itching red spots on skin that was urticaria. To what type of allergic reactions on Dzhell and Kumb's classification does this reaction belong?

- A** \* Anaphylactic reaction
- B** Cytotoxic
- C** Immunocomplex (reaction of type of the of Artyus' phenomenon )
- D** Cellular-mediated
- E** Stimulation

137

After usage of strawberry a child had itching red spots on skin that was urticaria. With what

component of immune system does the allergen in the child's organism of collaborate (interact)?

- A \* IgE
- B IgM
- C IgA
- D T-helpers
- E T-effectors

138

After usage of strawberry a child had itching red spots on skin that was urticaria. Which of bioactive substances that led to vasodilatation and onset of itch, was distinguished on degranulate of tissue basophiles?

- A \* Histamine
- B Bradykinin
- C Prostaglandin of E<sub>2</sub>
- D Leukotriene of B<sub>4</sub>
- E Interleukin-1

139

The patient suffers from tuberculosis (bacteria Koch's is indicated). He much worked before the disease, little rested. He lives under the unfavorable conditions. Father earlier also was ill by tuberculosis. Because of which of the enumerated positions a precisely bacterium Koch's is the causal factor of tuberculosis?

- A \* It is absolutely necessary are given the specific features
- B Bacteria can improve the course of disease
- C It interacts with other factors
- D Interacts with the organism
- E Can aggravate the course of disease

140

After usage of strawberry a child had itching red spots on skin that was urticaria. What leukocytosis will be exposed for a child?

- A \* Eosinophilic
- B Basophilic
- C Neutrophilic
- D Lymphocytotic
- E Monocytotic

141

Patient with with diabetes, type I (insulin-dependence diabetes), has a hyperketonemic (diabetic) coma. What disorder of the acid-base balance will the patient have?

- A \* Nongaseous acidosis
- B Gas acidosis
- C Nongaseous alkalosis
- D Gas alkalosis
- E Disorder of acid-base balance won't be

142. Diabetic patients has coma which developed after introduction of insulin. Level of glucose in blood is 2.35 mmol/liter. What kind of coma is it?

- A \* hypoglycemic

- B** Laktatsidemic
- C** hyperosmolar
- D** Ketoasidotic
- E** hyperglycemic

143. The patient suffering from Down syndrome, which is accompanied by mental retardation, low stature, stubby hands and feet, cut mongoloid eyes. Study of the karyotype revealed the presence of trisomy in the 21<sup>st</sup> pair of chromosomes. What type of disease is the pathology?

- A** \* Chromosomal disease
- B** Molecular Genetic Disease
- C** Gametopatiya
- D** Fetopatiya
- E** Blastopatiya

144. The patient complained of swelling on the feet. The doctor revealed: proteinuria, hypertension, hypoproteinemia, and hyperlipidemia. How is named this syndrome?

- A** \* Nephrotic
- B** anemic
- C** hypertensive
- D** Loss
- E** Urinary

145. In blood of the patient leukocytosis, lymphocytosis, anemia, cell Gumprehta are found. What kind of illness should think a doctor?

- A** \* Chronic lymphocytic leukemia
- B** acute myeloid leukemia
- C** lymphogranulomatosis
- D** Multiple myeloma
- E** Infectious mononucleosis

146. Patients 40 years old suffers from coronary heart disease and vascular disease of legs (occlusive disease). During the examination of the lower extremities revealed pallor and dystrophic changes of the skin, reducing the local temperature, disturbance of sensitivity and pain. What kind of disturbance of peripheral blood circulation the patient has?

- A** \* occlusion ischemia
- B** Compression ischemia
- C** angiospastic ischemia
- D** venous hyperemia
- E** Arterial hyperemia

147. The patient appeared anuria. The level of blood pressure was 50/20 mmHg. What kind of disturbance of urine formation caused the acute decrease in urine excretion?

- A** \* glomerular filtration
- B** obligate reabsorption
- C** Optional reabsorption
- D** tubular secretion
- E** All of these processes

148. A patient who is resident in the Highlands, has hemoglobin content in blood 180 g/l. Increasing of hemoglobin synthesis in chronic hypoxia occurs due to stimulation of bone marrow by:

- A** \* erythropoietin

- B adrenaline
- C noradrenaline
- D vasopressin
- E thyroxine

149. After surgical intervention for diffuse toxic goiter in a patient having fibrillar muscle twitching, seizures, clonic seizures. What is probably led to the development of symptoms in a patient?

- A \* Removal of parathyroid glands
- B Activation of adrenal glands
- C larynxes glands
- D Hypofunction pituitary glands
- E Activation of gonads

150. After consumption of phenacetin the patient has pain in the throat and fever. He has also necrotic angina and agranulocytosis. Reducing what kind of leukocytes is characteristic of agranulocytosis?

- A \* neutrophils
- B monocytes
- C eosinophils
- D basophils
- E lymphocytes

151. The rat, which during the day was in the immobilization chamber, the autopsy revealed erosion of the stomach. What kind of hormones could cause erosion in this case?

- A \* Glucocorticoids
- B mineralocorticoid
- C Insulin
- D Glucagon
- E Estrogens

152. A woman 45 years old suffers from prolonged uterine bleeding, there is a general weakness, shortness of breath, tachycardia, pain in the heart. Analysis of blood: red blood cells -  $3 \text{ g/l}$ , Hb -  $70 \text{ g/l}$ , color index - 0,7. In blood smears dominated hypochromic erythrocytes, microcytes.

What type of anemia the patient has?

- A \* Iron
- B B<sub>12</sub>-deficient anemia
- C Hemolytic
- D disease Minkowski-Shofar
- E Proteinodeficiency

153. The patient 56 years old, complains of pain in the joints of hands, especially at night, and the restriction of motor functions. OBJECTIVE: there are deformed, painful swelling of affected joints. In blood and urine revealed increased level of uric acid. What is the disease developed in a patient?

- A \* Gout
- B pellagra
- C Phenylketonuria
- D Alkaptouriya
- E Tirozinoz

154. Patient K., 35 years old, complains of a strong constant thirst, headache, irritability. Number

of liquid drunk per day is 9 liters. Daily urine output increased. The diagnosis is diabetes insipidus. Disturbance of which hormone caused this pathology?

- A \* vasopressin
- B aldosterone
- C glucocorticoids
- D catecholamine
- E renin

155. Due to rupture of spleen a patient has emerged massive internal bleeding with signs of hypoxia. Which of the following organs are most sensitive to hypoxia?

- A \* cortex
- B Stomach
- C Kidney
- D Lungs
- E Muscle

156. The patient complains of fever, weight loss, irritability, tachycardia, exophthalmos. What kind of endocrinopathies is characterized?

- A \* thyrotoxicosis
- B hypofunction of thyroid glands
- C hyperaldosteronism
- D Hypoaldosteronism
- E hypercortisism

157. The patient has decrease of urine output to 800 ml per day. How is named this change of diuresis?

- A \* Oligouria
- B Polyuria
- C Pyuria
- D Proteinuria
- E anuria

158. The patient had subclavian artery injury (massive bleeding). After 20 days there was made a blood test. What are the indicators of blood characterized an increasing eritropoiesis?

- A \* reticulocytosis
- B anisocytosis
- C poikilocytosis
- D Anizohromia
- E Hypohromiya

159. The patient 58 years old complained of a persistent increase in blood pressure. Clinical examination revealed he had chronic renal insufficiency with disturbance of renal blood flow. Activation of a what kind of regulatory mechanism led to increased blood pressure in a patient?

- A \* Renin-angiotensin system
- B parasympathetic nervous system
- C sympathetic nervous system
- D Cardiovascular
- E Central Nervous System

160. After injection of novocaine the patient has anaphylactic shock. What antibodies are responsible for the development of this allergic reaction?

- A \*Ig E

- B            Ig A
- C            Ig D
- D            Ig M
- E            Ig G

161. A woman 40 years old for a long period of suffering from menorrhagia. In the analysis of blood Hb - 90 g/l, erythrocytes. -  $3,9 \times 10^{12}/l$ , CI - 0,69. What is the main cause of hypochromic anemia?

- A \* Loss of iron from the blood
- B increased use of iron
- C disturbance of iron absorption in the body
- D Deficiency Vitamin B<sub>12</sub>
- E Insufficient intake of iron from food

162. Man stung by a bee. The region of it has any redness, swelling. What is the main mechanism of development of edema?

- A \* Increased capillary permeability
- B Reduced oncotic pressure of blood
- C Increased hydrostatic pressure of blood
- D Reducing the osmotic pressure of blood
- E disturbance of lymph output

163. The patient, 67 years old has swollen legs by the end of the day. During the night, these swelling disappeared. What type of edema appeared in the patient?

- A \* Cardiac
- B Kidney
- C liver
- D Hungry
- E allergies

164. The patient 38 years old has fever (to 39°C). What type of white blood cells produces a substance that increases the temperature of the body?

- A \* Monocytes
- B Eosinophils
- C Basophils
- D Neutrophils
- E Lymphocytes

165. A worker of asphalt plant 57 years old complained of weakness, cough with sputum mixed with blood, pain in the chest. He suffers from diagnosis: cancer of the lungs. Name the first stage of carcinogenesis:

- A \* Transformation
- B Promotion
- C Activation
- D Progression
- E Induction

166. The patient suffers from increase in plasma the level of total bilirubin by the indirect form, in the faeces and urine - a high concentration of sterobilin, the level of direct bilirubin in the blood is normal. What kind of jaundice patient has?

- A \* Hemolytic
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167. The patient after a car accident has blood pressure 70/40 mm. Hg., diuresis 300 ml of urine. What is the mechanism of oliguria in this case?

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- C formation of antibodies to insulin
- D Seal basement membrane of renal glomeruli
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- A \* Prodromal
- B Expressed manifestations
- C Latent
- D Outcomes
- E remote consequences

181. The patient 2 years old during the year often emerging infectious diseases of bacterial origin, having a long course. In the analysis of immunological patient was found hypogammaglobulinemia. Disturbance of any function of the cells most likely to be the direct cause of it?

- A \* B-lymphocytes
- B phagocytes
- C macrophages
- D T-killers
- E NK-cells

