

ZAPOROZHYE STATE MEDICAL UNIVERSITY  
THE DEPARTMENT OF INTERNAL DISEASES №3

**Test “KROK-2” Tasks in  
HEMATOLOGY**

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Test “KROK-2” Tasks in HEMATOLOGY for independent preparation to practical  
studies for English-speaking students of medical faculty of 6 course. Practical work is  
represented as collection of test tasks and clinical tasks with standarts of true answers in  
hematology.

## **INTRODUCTION**

The collection of test tasks “Test “KROK-2” Tasks in HEMATOLOGY” is designed to improve the quality of training of future general practitioners, including general practitioners / family doctors, since in recent decades there has been a significant spread and growth of the pathology of internal organs, especially hematological diseases .

In the presented collection of test questions, questions are considered that will be useful in practical work of therapists and will provide substantial assistance to students, interns, general practitioners, family doctors in mastering the problems of diagnosis and differential diagnosis of hematological diseases.

The collection of test tasks is built on the basis of the curriculum for the discipline "Internal Medicine", contains a sufficient number of test tasks that reveal the general provisions and a special part of the pathological states in hematology. The workshop includes test tasks from recent years from the Testing Center at the Ministry of Health of Ukraine.

The presented collection of test tasks is a rather relevant form of teaching students in higher educational institutions of III-IV accreditation levels from the standpoint of the Bologna process, including preparation for the "KROK-2" licensing exam.

1. At the patient S., 68 years old, during examination atrophy of papillae of language, yellowness of white of the eyes, splenomegaly, and symmetrical paresthesia were found out, at FGDS - atrophical gastritis, at Ph-metry – achlorhydria. In blood test: anemia, makrocytosis. What researches can confirm the diagnosis:

- A. Sternal puncture
- B. US investigation of abdominal cavity
- C. Consultation of neurologist
- D. Determination of iron of blood serum
- E. Spleen puncture

2. At the patient K., 18 years old, abundant bleeding began after extraction of tooth. In the anamnesis: haemophilia A. What first aid the patient needs:

- A. Ascorutin
- B. Aminocapron acid
- C. Calcii chloridi
- D. Vikasol
- E. Cryoprecipitate

3. At the sick M., 42 years old, who was taking mercazolile for a long time, concerning thyreotoxicosis, agranulocytosis developed. What changes are possible to expect in leukoformula:

- A. Leukocytosis with lymphotcytosis
- B. Leukocytosis with neutrophilia
- C. Leukocytosis with lymphopenia
- D. Leukopenia with neutrophilia
- E. Leukopenia with neutropenia

4. The patient L., 23 years old, complains on increase of temperature of body to 38C, appearance of hypodermic hemorrhages. Doctor diagnosed aplastic anemia. What symptom from the below will be observed at the sick:

- A. Splenomegaly
- B. Lymphadenia
- C. Leukopenia
- D. Hepatomegaly
- E. Hyperthrombotcytosis

5. The sick Z., 68 years old, complains on pain in bones, subfebrile temperature of body, weight loss. At inspection moderate normochromic anemia is determined, blood sedimentation-55 mm/h, proteinuria-0,99 g/l. What of research methods is less informing for clarification of diagnosis:

- A. Definition of general protein
- B. Definition of albuminous fractions
- C. Roentgenography of bones
- D. Definition of level of iron of blood serum
- E. Sternal puncture

6. At the patient S., 68 years old, during examination yellowness of white of the eyes,

hepatosplenomegaly, symmetrical paresthesia, at additional research - atrophical gastritis with achlorhydria were discovered. What sign contradicts the clinic of the described condition:

- A. Macrocytosis
- B. Gunther`s glossitis
- C. Thrombocytopenia
- D. Microcytosis
- E. Hypersegmentation of nucleus of neutrophiles

7. Which from diseases transferred below such hematological indexes are characteristic for: expressed anemia, leukopenia, neutropenia, presence of 15% of plasma cells in bone marrow:

- A. Acute leukemia
- B. Chronic myeloleukemia
- C. Multiple myeloma
- D. Chronic lympholeukemia
- E. Lymphogranulomatosis

8. At the 23 years old man, who suffers on acute myeloblastic leukemia, massive hypodermic hemorrhages, nose bleeding appeared. There are expressed anemia, thrombotcytopenia, and 30% of blasts in blood test. What first aid the patient needs:

- A. Extending of polychemotherapy
- B. Transfusion of packet red cells
- C. Transfusion of thromboconcentrate
- D. Introduction of iron preparations
- E. Introduction of vikalol

9. The patient S., 68 years old, immediately hospitalized concerning hard anemia (Hb-50 g/l, macrocytosis) with complaints on dyspnea in rest, disturbance of step. At examination: yellowness of white of the eyes, tachycardia, hepatosplenomegaly. What help the patient needs:

- A. Preparations of iron intravenous
- B. Vitamin B<sub>12</sub>, packet red cells
- C. Prednizolon
- D. Anabolic steroids
- E. Packet red cells

10. The patient T., 60 years old, complains on dyspnea. During many years he is suffering on chronic obstructive pulmonary disease. Hepatosplenomegaly. Blood test: E- $6,8 \times 10^{12}/l$ , Hb-190 g/l, L- $12 \times 10^9/l$ , T- $520 \times 10^9/l$ , blood sedimentation-2 mm/h. Define the reliable diagnosis:

- A. Chronic obstructive pulmonary disease. Symptomatic erythrocytosis
- B. Pikvik`s syndrome. Symptomatic erythrocytosis
- C. Hypertonic illness. Symptomatic erythrocytosis
- D. Erythremia. Chronic obstructive pulmonary disease
- E. Chronic myeloleukemia. Chronic obstructive pulmonary disease

11. At examination of the 70 years old patient with fever and dyspnea, pallor of skin, moist rales in the lower departments of lungs, tachycardia, diastolic noise in the V point, AP-140/40, increase of spleen are found out. In blood: E- $2,7 \times 10^{12}/l$ , Hb-75 g/l, L- $4,2 \times 10^9/l$ , blood sedimentation-45 mm/h; in urine - moderate proteinuria, microhematuria. Define the reliable diagnosis:

- A. Chronic myeloleukemia
- B. Infectious endocarditis
- C. Rheumatic heart disease
- D. Pneumonia
- E. Acute myocarditis

12. The sick K., 58 years old, marks increased lymphatic knots of neck and subarm- pits. At examination: size of lymphatic knots 3x4 sm, painless, soft, mobile, skin above them is not changed. General analysis of blood: E- $3,2 \times 10^{12}/l$ , Hb-102 g/l, CI-1,0; L-  $235 \times 10^9/l$ , e-2%, r/n-4%, s-12%, l-76%, m-6%, Gumprechts` bodies. Define the reliable diagnosis:

- A. Chronic lympholeukemia
- B. Reactive lymphadenitis
- C. Lymphogranulomatosis
- D. Malignant lymphoma
- E. Metastasis of cancer in lymphatic knots

13. The 63 years old participant of liquidation of failure on CHAES, complains on causeless weakness, feeling of holding apart in the left subcostum. The patient feels itself sick for a year. Objectively: skin is pale, liver + 3 sm, spleen +10 sm. In blood: E- $3,1 \times 10^{12}/l$ , Hb-100 g/l, L- $200 \times 10^9/l$ , e-6%, b-3%, blast-2%, promiel-10%, miel-18%, r/n -27%, s-10%, l-12%, m-2%, blood sedimentation-40 mm/h. What diagnosis is the most credible:

- A. Hemolytic anemia
- B. Cirrhosis of liver
- C. Acute leukemia
- D. Chronic myeloleukemia
- E. Chronic lympholeukemia

14. The patient L., 30 years old, complains on general weakness, fragility of nails, hair fall, considerable and prolonged menstruations. Objectively: pallor of skin, heart rate-90, AP-100/70. Blood test: E- $3,5 \times 10^{12}/l$ , Hb-90 g/l, CI-0,7; blood sedimentation-20 mm/h. Define the previous diagnosis:

- A. Iron deficiency anemia
- B. B<sub>12</sub> deficiency anemia
- C. Aplastic anemia
- D. Acute leukemia
- E. Follic deficiency anemia

15. The sick F., 50 years old, complains on itch of skin after aquatic procedures. Objectively: skin of red color, liver + 2 sm, spleen + 4 sm. Blood test: E- $6,4 \times 10^{12}/l$ , Hb-185 g/l, L- $10,0 \times 10^9/l$ , e-5%, r/n-8%, s/n-56%, l-26%, m-5%, T- $525 \times 10^9/l$ , blood sedimentation-1mm/h, hematcrit-72%. What research must be conducted for clarification

of diagnosis:

- A. Definition of B<sub>12</sub> in blood
- B. Sternal puncture
- C. Definition of alkaline phosphatase of blood
- D. Iron of blood serum
- E. US investigation of abdominal cavity

16. The sick T., 36 years old, appealed to internist with complaints on pain in throat, increase of temperature of body to 39°C. Objectively: skin is pale, single bruises on thighs, necrotic changes on tonsils, spleen +3 sm. Blood test: E- $1,9 \times 10^{12}/l$ , Hb-57 g/l, L- $20,0 \times 10^9/l$ , blast -26%, s-25%, l-42%, m-7%, T- $32,0 \times 10^9/l$ , blood sedimentation-60 mm/h. What research needs be conducted for clarification of diagnosis:

- A. Sternal puncture
- B. Smear from fauces
- C. US investigation of abdominal cavity
- D. Spleen puncture
- E. Computed tomography of abdominal cavity

17. The sick L., 68 years old, complains on increased lymphatic knots, perspiration. Objectively: skin and mucous membranes are pale, increased inguinal and subaxillary lymphatic knots, palpated by diameter of 2-3 sm, soft, unpainful, mobile. Sizes of liver by Curlov are 18x14x13 sm. Blood test: E- $3,5 \times 10^{12}/l$ , Hb-100 g/l, CI-0,8, L- $380 \times 10^9/l$ , e-3%, l-95%, m-2%, T- $190 \times 10^9/l$ . Define the previous diagnosis:

- A. Chronic lympholeukemia
- B. Acute leukemia
- C. Chronic myeloleukemia
- D. Leukemoid reaction of lymphoid type
- E. Cirrhosis of liver

18. The sick A., 56 years old, appealed to doctor with complaints on perspiration, weight loss, heavy feeling in the left half of stomach. Skin and mucous membranes are pale. Large spleen is palpated and liver is moderately increased. Blood test: E- $3 \times 10^{12}/l$ , Hb- 90 g/l, L- $240 \times 10^9/l$ , eoz-9%, baz-6%, myeloblast-4%, promyel-3%, myel-23%, metamyel-16%, r/n-15%, s/n-12%, l-7%, m-5%, blood sedimentation-40 mm/h. Define the previous diagnosis:

- A. Chronic lympholeukemia
- B. Acute leukemia
- C. Chronic myeloleukemia
- D. Leukemoid reaction of myeloid type
- E. Cirrhosis of liver

19. The patient O., 50 years old, complains on general weakness, numbness of lower extremities. Objectively: skin is pale, liver + 2 sm. Blood test: E- $2,3 \times 10^{12}/l$ , Hb-95 g/l, CI-1,3, L- $2,4 \times 10^9/l$ , r/n-2%, s/n-53%, l-40%, m-5%, blood sedimentation-34 mm/h, macrocytosis, hypersegmentation of neutrophils. What research needs to be conducted for definition of diagnosis:

- A. US investigation of abdominal cavity

- B. Sternal puncture
- C. Definition of B<sub>12</sub> in blood
- D. Iron of blood serum
- E. Liver puncture

20. The patient G., 58 years old, complains on headache, dizziness. Objectively: skin is plethoric, heart rate-82, AP-180/90, liver and spleen are moderately increased. Blood test: E- $8,0 \times 10^{12}/l$ , Hb-220 g/l, CI-1,0; L- $11,5 \times 10^9/l$ , T- $560 \times 10^9/l$ .

What research must be conducted for diagnostics of the disease:

- A. Echocardiography
- B. Sternal puncture
- C. US investigation of abdominal cavity
- D. Iron of blood serum
- E. Determination of hematocrit

21. The patient, 19 years old, complains on fever, pain in throat, sickly neck lymphatic knots. At examination: spleen and liver are increased. In general analysis of blood 32% of mononucleares are found out. What disease you think about:

- A. Lymphatic angina
- B. Hepatitis
- C. Angina
- D. Acute leukemia
- E. Sepsis

22. The patient T., 45 years old, complains on general weakness, dyspnea at insignificant physical load, pain in the right subcostum. During 10 years the patient was misusing of alcohol. Objectively: reduced feed, skin is pale with icteric tint, systolic noise above all auscultational points, liver + 6 sm, spleen +2 sm. In blood: E- $1,8 \times 10^{12}/l$ , Hb-75 g/l, CI-1,3; L- $3,5 \times 10^9/l$ , e-3%, r/n-4%, s/n-65%, l-21%, m-7%; T- $110 \times 10^9/l$ , blood sedimentation-50 mm/h. What diagnosis is most credible:

- A. B<sub>12</sub> deficiency anemia
- B. Follic deficiency anemia
- C. Hypoplastic anemia
- D. Cirrhosis of liver
- E. Autoimmune thrombocytopenia

23. The 35 years old woman, who during two years treats oneself at internist concerning NCD and at gynaecologist concerning menorrhagia, complains on muscular weakness, decline of memory, subfebrile temperature. General analysis of blood: E- $3,5 \times 10^{12}/l$ , Hb-100 g/l, CI-0,7, anisocytosis, L- $3,8 \times 10^9/l$ , e-2%, r/n-4%, s/n-60%, l-26%, m-8%, blood sedimentation-12 mm/h, iron of blood serum-7,8 mkm/l. What treatment needs to be appointed:

- A. Preparations of iron per os
- B. Follic acid
- C. Preparations of iron intravenous
- D. Vitamins of group B
- E. Transfusion of packet red cells



24. The patient G., 58 years old, complains on headache, dizziness. Objectively: skin is pletoric, tones of heart are rhythmic, heart rate-82, accent of the second tone above aorta, AP-180/90, spleen is moderately increased. Blood test: E- $8,2 \times 10^{12}/l$ , Hb-210 g/l, CI-1,2, L- $10,5 \times 10^9/l$ , T- $560 \times 10^9/l$ . What diagnosis is most credible:

- A. Erythremia
- B. Chronic myeloleukemia
- C. Cerebral insult
- D. Tumor of brain
- E. Cirrhosis of liver

25. About what pathology it is possible to think at presence at the sick of ecchymoses, prolonged menstruations, thrombocytopenia in general analysis of blood and raised percent of megakariocytes in bone marrow aspirates:

- A. Aplastic anemia
- B. Acute leukemia
- C. Systemic lupus erythematosus
- D. Idiopathic thrombocytopenic purpura
- E. Chronic hepatitis

26. At the formula of blood: E- $1,3 \times 10^{12}/l$ , Hb-58 g/l, CI-1,3, megaloblast-2 on 100, reticulocyt-0,2%, macrocytosis, L- $2,8 \times 10^9/l$ , e-3%, r/n-5%, s/n-49%, l-37%, m-6%, T- $100,0 \times 10^9/l$ , blood sedimentation-30 mm/h, formulate the previous diagnosis:

- A. Iron deficiency anemia
- B. B<sub>12</sub> deficiency anemia
- C. Aplastic anemia
- D. Acute leukemia
- E. Agranulocytosis

27. At the formula of blood: E- $3,5 \times 10^{12}/l$ , Hb-110 g/l, L- $330 \times 10^9/l$ , baz-5%, eozin-9%, promyel-2%, myel-22%, metamyel-21%, r/n-15%, s/n-12%, l-8%, m-6%; thromb- $200,0 \times 10^9/l$ , blood sedimentation-45 mm/h. Formulate the previous diagnosis:

- A. Acute leukemia
- B. Chronic lympholeukemia
- C. Chronic myeloleukemia
- D. Erythremia
- E. Multiple myeloma

28. The 23 years old patient on the background of angina noticed increase of lymphatic nodes. At examination phenomena of acute angina, magnification of liver are marked. At research of blood: E- $4,1 \times 10^{12}/l$ , Hb-130 g/l, thromb- $230,0 \times 10^9/l$ , L- $6,5 \times 10^9/l$ , in leukocyte formula there are 45% of lymphomonocytic cells, blood sedimentation-35 mm/h. What diagnosis is most credible:

- A. Lymphatic angina
- B. Chronic lympholeukemia
- C. Infectious lymphadenitis
- D. Acute hepatitis

## E. Acute monoblastic leukemia

29. The 23 years old patient on the background of angina noticed increase of lymphatic nodes. At examination phenomena of acute angina, magnification of liver are marked. At research of blood: E- $4,1 \times 10^{12}/l$ , Hb-130 g/l, T- $230,0 \times 10^9/l$ , L- $6,5 \times 10^9/l$ , in leukocyte formula there are 45% of lymphomonocytic cells, blood sedimentation-35 mm/h. What additional research must be conducted for confirmation of diagnosis:

- A. Sternal puncture
- B. Biopsy of lymphatic knot
- C. US Investigation of liver and spleen
- D. Smear from fauces
- E. Roentgenography of lungs

30. At the formula of blood: E- $2,5 \times 10^{12}/l$ , Hb-68 g/l, CI-1,5, megaloblast-5 on 100, reticulocyt-0,2%, L- $2,8 \times 10^9/l$ , e-3%, r/n-4%, s/n-45%, l-33%, m-5%, thromb- $105 \times 10^9/l$ , blood sedimentation-30 mm/h. Appoint additional research, which must be conducted for confirmation of diagnosis:

- A. Sternal puncture
- B. US Investigation of liver and spleen
- C. Roentgenography of lungs
- D. Definition of maintenance of B<sub>12</sub> in blood
- E. Definition of iron of blood serum

31. At the indicated formula of blood: E- $2,8 \times 10^{12}/l$ , Hb-80 g/l, CI-0,8, reticulocyt-20%, L- $7,5 \times 10^9/l$ , e-2%, r/n-4%, s/n-54%, l-37%, m-3%, T- $200 \times 10^9/l$ , blood sedimentation-35 mm/h, microspherocytosis. Appoint additional research, which is necessary for confirmation of diagnosis:

- A. Sternal puncture
- B. Definition of maintenance of B<sub>12</sub> in blood
- C. Definition of maintenance of iron of blood serum
- D. US investigation of liver and spleen
- E. Definition of osmotic resistance of erythrocytes

32. At the indicated formula of blood: E- $2,8 \times 10^{12}/l$ , Hb-80 g/l, microspherocytosis, CI-0,8, reticul-20%, L- $7,5 \times 10^9/l$ , e-2%, r/n-4%, s/n-54%, l-37%, m-3%, T- $200 \times 10^9/l$ , blood sedimentation-35 mm/h. Define the previous diagnosis:

- A. B<sub>12</sub> deficiency anemia
- B. Folic deficiency anemia
- C. Inborn hemolytic anemia
- D. Iron deficiency anemia
- E. Acute leukemia

33. The sick K., 72 years old, complains on aversion to meat, weight loss on 12 kg during 6 months. At examination: skin is pale, above the left collar-bone increased, not mobile, dense lymphatic knot is palpated. Liver is + 4 sm, dense, painful. General analysis of blood: E- $2,5 \times 10^{12}/l$ , Hb-78 g/l, L- $11,8 \times 10^9/l$ , T- $460 \times 10^9/l$ , blood sedimentation-55 mm/h. About what disease it is possible to think:

- A. Acute leukemia.
- B. B<sub>12</sub> deficiency anemia
- C. Follic deficiency anemia
- D. Cancer of stomach with metastasis
- E. Multiple myeloma

34. The sick K., 72 years old, complains on aversion to meat, weight loss on 12 kg during 6 months. At examination: skin is pale, icteric, above the left collar-bone increased, not mobile, dense lymphatic knot is palpated. Liver is + 4 sm, dense, painful. General analysis of blood: E- $2,5 \times 10^{12}/l$ , Hb-78 g/l, L- $12,8 \times 10^9/l$ , T- $460 \times 10^9/l$ , blood sedimentation-55 mm/h. What research needs to be conducted for confirmation of diagnosis:

- A. Sternal puncture.
- B. US investigation of liver
- C. Biopsy of lymphatic knot
- D. FGDS
- E. Ph-metry

35. The patient G., 57 years old, complains on diarrhea, increase of temperature of body to 37,5C, obdormition and tingling in lower extremities. The resection of stomach concerning ulcer was done 4 years ago. At examination: skin is pale, icteric, liver +3 sm, spleen +2 sm. General analysis of blood: E- $2,3 \times 10^{12}/l$ , Hb-80 g/l, CI-1,2, L-  $2,3 \times 10^9/l$ , formula is not changed, T- $140 \times 10^9/l$ , blood sedimentation-45 mm/h, macrocytosis. About what disease it is possible to think:

- A. Iron deficiency anemia
- B. Cancer of stomach
- C. B<sub>12</sub> deficiency anemia
- D. Inborn hemolytic anemia
- E. Follic deficiency anemia

36. At the young woman after viral infection acute belly – ache, diarrhea with the admixtures of blood, pain in knee-joints, increase of temperature of body appeared. Objectively: skin is pale, micropoint eruption on the skin of shins, at palpation thick intestine is painful. In blood: leukocytosis, increased blood sedimentation; in urine: low proteinuria, microhematuria. What additional research must be conducted:

- A. Proteinogram
- B. C-reactive protein
- C. LE-cells, antibodies to native DNK
- D. Villebrandts` factor, circulating immune complexes
- E. US investigation of abdominal cavity

37. The sick F., 62 years old, appealed to doctor with complaints on general weakness, headache, itch of skin after contact with water. Objectively: skin of face of redder – bluish color, AP-180/90, spleen + 4 sm. What diagnosis is most credible:

- A. Allergic dermatitis
- B. Dermatomyositis
- C. Erythremia
- D. Hypertonic illness

## E. Cirrhosis of liver

38. The patient G., 57 years old, complains on periodic diarrhea, increase of temperature of body to 37,5C, obdormition and tingling in lower extremities. The resection of stomach concerning ulcer was done 4 years ago At examination: skin is pale, icteric, liver + 3 sm, spleen + 2 sm. General analysis of blood: E- $2,3 \times 10^{12}/l$ , Hb-80 g/l, CI-1,3, L- $2,3 \times 10^9/l$ , formula is not changed, T- $140 \times 10^9/l$ , blood sedimentation-40 mm/h, macrocytosis. What additional research must be conducted for clarification of diagnosis: A. US investigation of liver and spleen

B. Sternal puncture

C. FGDS

D. Research of bilirubin of blood

E. Roentgenoscopy of stomach

39. The 19 years old youth complains on acute pain and slight swelling in right knee-joint, limitation of motions in it, which arose up after insignificant trauma. In anamnesis there is hemophilia. At review hemarthrosis of knee-joint is determined. It is necessary to use in treatment:

A. Cryoprecipitate

B. Donor blood (at direct transfusion)

C. Decinon

D. Donor blood (ampuled)

E. Thrombocytic mass

40. The 44 years old man is hospitalized to the infectious separation with the diagnosis of follicular angina. At examination: temperature of body 38,6C, skin is pale, pulse – 112, AP-90/60. In blood test: E- $2,5 \times 10^{12}/l$ , HB-90 g/l, CI-0,8; L- $38,0 \times 10^9/l$ , blast-68%, r/n-2%, s/n-5%, l-23%, m-2%, blood sedimentation-46 mm/h. What primary research the patient needs:

A. US investigation of abdominal cavity

B. Sternal puncture.

C. Smear from fauces

D. Seeding of blood on sterility

E. Determination of ferritin of blood

41. The 28 year old woman appealed to doctor with complaints on appearance of ecchymoses after insignificant traumas or spontaneously. At examination: skin is pied (fresh and old hemorrhage) on the front surface of trunk and extremities. In blood test: T- $20 \times 10^9/l$ , in bone marrow number of megakaryocytes is increased. What is the most reliable disease:

A. Hemorrhagic vasculitis

B. Randyu-Osler's` disease

C. Hemophilia

D. Idiopathic thrombocytopenic purpura

E. Systemic lupus erythematosus

42. At the 55 years old man, patient on B<sub>12</sub> deficiency anemia, symptoms of funicular

myelosis gradually appeared. In blood: anemia, leukopenia, thrombocytopenia, increase of colour index, blood sedimentation-40 mm/h; hyperbilirubinemia due to indirect. What is the most credible reason of funicular myelosis:

- A. Increased level of bilirubin
- B. Accumulating of propion and metilmalon acids
- C. Long – lasting hypoxia of nervous system
- D. Activating of infection as a result of leukopenia
- E. Deficiency of feed

43. The 44 years old man is hospitalized to the infectious separation with the diagnosis of follicular angina. At examination: temperature of body of 38,6C, skin is pale, pulse 112, AP-100/60. In blood test: E- $2,5 \times 10^{12}/l$ , Hb-90 g/l, CI-0,8, L- $38 \times 10^9/l$ , blast-68%, r/n-2%, s/n-14%, l-14%, m-2%, blood sedimentation-46 mm/h. What disease it follows to suspect at the patient:

- A. Chronic lympholeukemia
- B. Chronic myeloleukemia
- C. Acute leukemia
- D. Lymphatic angina
- E. Leukemoid reaction

44. At the young woman after viral infection acute belly – ache, diarrhea with the admixtures of blood, pain in knee-joints, increase of temperature of body appeared. Objectively: skin is pale, micropoint eruption on the skin of shins, at palpation thick intestine is painful. In blood: leukocytosis, increased blood sedimentation; in urine: low proteinuria, microhematuria. What diagnosis is the most reliable:

- A. Crohn`s disease
- B. Hemorrhagic vasculitis
- C. Nodular polyarteriitis
- D. Unspecific ulcerative colitis
- E. Systemic lupus erythematosus

45. The patient T., 45 years old, complains on general weakness, dyspnea at insignificant physical load, pain in the right subcostum. During 10 years the patient was misusing of alcohol. Objectively: reduced feed, skin is pale with icteric tint, systolic noise above all auscultational points, liver + 6 sm, spleen +2 sm. In blood: E- $1,8 \times 10^{12}/l$ , Hb-75 g/l, CI-1,3; L- $3,5 \times 10^9/l$ , e-3%, r/n-4%, s-65%, l-21%, m-7%; T- $110 \times 10^9/l$ , blood sedimentation-50 mm/h. What laboratory research must be conducted for clarification of diagnosis:

- A. Sternal puncture
- B. Definition of concentration of folates in red corpuscles of blood
- C. Definition of ferritin of blood
- D. Definition of B<sub>12</sub> in blood
- E. Definition of iron of blood serum

46. At the patient, 57 years old, after viral infection subfebrile temperature is saved for a long time, heavy feeling in the left subcostum is marked. At examination: skin is pale, spleen +6 sm, liver +3 sm. In blood test: E- $2,9 \times 10^{12}/l$ , Hb-90 g/l, CI-1,0; L- $540,0 \times 10^9/l$ ,

eozin-4%, baz-3%, blast-34%, myel-2%, metamyel-3%, r/n-5%, s/n-27%, l-18%, m- 4%, T- $260 \times 10^9/l$ , blood sedimentation-37 mm/h. What disease it follows to suspect at the patient:

- A. Acute myeloblastic leukemia
- B. Chronic myeloleukemia, blastic crisis
- C. Chronic lympholeukemia.
- D. Lymphogranulomatosis
- E. Leukemoid reaction of myeloid type

47. The patient F., 29 years old, who during two years treated oneself at gynaecologist concerning menorrhagia, complains on increased fatigability, palpitation at physical load, unretaining of urine. Has a desire to eat chalk. In blood test: E- $3,5 \times 10^{12}/l$ , Hb-95 g/l, L- $3,8 \times 10^9/l$ , e-3%, r/n-5%, s/n-56%, l-26%, m-6%, blood sedimentation-24 mm/h, hypochromia of red corpuscles, anisocytosis, poikilocytosis, iron of blood serum-5,5 mkm/l. What treatment must be appointed:

- A. Follic acid
- B. Cyancobalamine
- C. Preparations of iron per os
- D. Ascorbic acid
- E. Transfusion of packet red cells

48. At the patient, who suffers on chronic lympholeukemia, general weakness increased, yellowness of white of the eyes and skin appeared. At examination: Hb-65 g/l, reticul-5%, general bilirubin-80,3 mkmol/l, indirect-65,3 mkmol/l. Urobilin is increased in analysis of urine. The direct Coombs` test is positive. What pathogenetic mechanism is lying in the root of anemia:

- A. Myelofibrosis
- B. Oppressing of erythroid link of hemopoiesis
- C. Autoimmune hemolysis
- D. Deficiency of follic acid
- E. Disturbance of porfirin metabolism

49. The pregnant, 18 years old (20 weeks), complains on weakness, dyspnea at physical load. At women`s dispensary she was not observed before. Objectively: skin is pale with lemon tint; face is puffy, language - bright red, liver + 3 sm. In blood test: E-  $3,0 \times 10^{12}/l$ , Hb-88 g/l, CI-1,3; L- $3,8 \times 10^9/l$ , T- $130,0 \times 10^9/l$ ; e-3%; r/n-4%; s/n-52%; l- 36%; m-5%; macrocytosis, blood sedimentation-28 mm/h. What diagnosis is the most reliable:

- A. Iron deficiency anemia
- B. B<sub>12</sub> deficiency anemia
- C. Follic deficiency anemia
- D. Acute leukemia
- E. Hepatitis

50. The patient D., 50 years old, complains on dizziness, blinking of "spots" before eyes. At examination: subicteric skin and mucouses, liver +4 sm, dense, painful, spleen +8 sm, dense. In blood test: E- $2,2 \times 10^{12}/l$ , Hb-80 g/l, reticul-30%, L- $6,0 \times 10^9/l$ , e-3%, r/n-6%, s/n-62%, l-20%, m-8%; blood sedimentation-30 mm/h; osmotic resistance of red

corpuscles 0,52-0,56%; bilirubin of blood is moderately increased due to indirect, reaction on urobilin is Acutely positive, the Coombs` test is positive. What diagnosis is the most credible:

- A. Minkovskiy – Shoffars` disease
- B. Agranulocytosis
- C. Night hemoglobinuria
- D. Autoimmune hemolytic anemia
- E. Gilber`s disease

51. The patient I., 47 years old, is hospitalized in clinic with complaints on expressed weakness, increase of temperature of body to 39,2°C, pain in throat. At examination: in blood test there are anemia, thrombocytopenia, leukocytosis with “leukemic failure”, blast-34%, blood sedimentation-40 mm/h. What research must be conducted for clarification of diagnosis:

- A. Coagulogram
- B. Sciagraphy of bones of skull
- C. Unfolded blood test
- D. Seeding from tonsils
- E. Sternal puncture

52. The patient I., 18 years old, was hospitalized with complaints on nose-bleeding, hemorrhagic rash as petechias on the skin of lower extremities. Vaccination against flu was done two weeks ago. In blood test: E-4,0x10<sup>12</sup>/l, L-6,7x10<sup>9</sup>/l, T-30,0x10<sup>9</sup>/l, e-2%, r/n-4%, s/n-54%, l-32%, m-8%, blood sedimentation-2 mm/h. Your previous diagnosis:

- A. Hemorrhagic vasculitis
- B. Acute leukemia
- C. Autoimmune thrombocytopenia
- D. Randyu-Osler`s disease
- E. Systemic lupus erythematosus

53. The patient, 68 years old, complains on general weakness, pain in ribs, lumbar area. At examination: moderate normochromic anemia, general albumen-107 g/l, diurnal proteinuria-5,0 g/day. On the sciagrams of bones of skull a lot of shallow rounded hearths of destruction were discovered by diameter from 0,8 to 2,0 sm. What diagnosis can be suspected at this patient:

- A. Multiple myeloma
- B. Osteolytic metastases in bones
- C. Amyloidosis of kidneys with nephrotic syndrome
- D. Hyperparathyroidic osteodystrophy
- E. Chronic glomerulonephritis with nephrotic syndrome

54. The patient S., 64 years old, at examination in policlinic increased lymphatic knots of neck, arm-pits, groin and liver (+3 sm) were found out. In blood test: E-3,1x10<sup>12</sup>/l, Hb-98 g/l, L-500,0x10<sup>9</sup>/l, e-2%, r/n-1%, s/n-13%, l-80%, m-4%, blood sedimentation-40 mm/h. What reliable diagnosis the patient has:

- A. Chronic myeloleukemia
- B. Cancer of liver

- C. Chronic lympholeukemia
- D. Tubercular lymphadenitis
- E. Lymphogranulomatosis

55. The patient G., 37 years old, during three months marks frequent nose-bleedings and menorrhagia, appearance of bruises on skin. Three days ago after considerable nose-bleeding, dizziness, palpitation appeared. At examination: on the skin of front surface of trunk and feet - plural petechias, single ecchymoses. In blood test: E- $3,0 \times 10^{12}/l$ , Hb-100 g/l, CI-0,7; L- $5,3 \times 10^9/l$ , T- $40,0 \times 10^9/l$ , blood sedimentation-19 mm/h. What diagnosis can be suspected at this patient:

- A. Aplastic anemia
- B. Hemophilia
- C. Hemorrhagic vasculitis
- D. Iron deficiency anemia
- E. Autoimmune thrombocytopenic purpura

56. The patient A., 42 years old, complains on dizziness, appearance of bruises on skin, nose-bleedings, and weight loss. He is ill for 3 months. At examination: reduced feed, skin is pale with presence on the front surface of hands, feet and trunk of different remoteness of plural bruises by diameter from 0,2 to 3,0 sm.

What type of hemorrhage takes place at the patient:

- A. Angiomatosal
- B. Hematomal
- C. Mixed
- D. Vasculit-purpural
- E. Petechia-macular

57. At the 26 years old patient yellowness of skin, dizziness, palpitation, spleen +2,5 sm determined. Urine is dark, feces of umber color. In blood test there are normochromic anemia, reticul-4%. Reaction on urobilin is Acutely positive. What research must be conducted for establishment of diagnosis:

- A. Definition of vitamin B<sub>12</sub>
- B. Definition of iron of blood serum
- C. Definition of osmotic resistance of erythrocytes
- D. Electrophoresis of proteins of blood serum
- E. Sternal puncture

58. The patient A., 20 years old, delivered to inpatient facility concerning pit bleeding after extraction of tooth. In blood test: E- $2,80 \times 10^{12}/l$ , Hb-80 g/l, L- $4,0 \times 10^9/l$ , e-2%, r/n-3%, s/n-62%, l-28%, m-5%; T- $24,0 \times 10^9/l$ : blood sedimentation-25 mm/h. What disease can be assumed at the patient:

- A. Autoimmune thrombocytopenic purpura.
- B. Acute leukemia
- C. Hemophilia B
- D. Agranulocytosis
- E. Aplastic anemia



59. The patient S, 21 years old, after radial irradiation complains on palpitation, dyspnea, frequent nose-bleedings, bruises on body. The patient marks frequent acute respiratory diseases. In blood test: E- $2,0 \times 10^{12}/l$ , Hb-54 g/l, L- $1,7 \times 10^9/l$ , e-0%, r/n-0%, s/n-32%, l-62%, m-6%; T- $30,0 \times 10^9/l$ , blood sedimentation-52 mm/h. What treatment is most expedient in this case:

- A. Transfusion of thrombocytic mass
- B. Bone marrow transplantation
- C. Transfusion of packet red cells
- D. Transfusion of whole blood
- E. Introduction of antilymphocytic immunoglobulin

60. The patient E., 57 years old, complains on pain in lumbar area, bones of pelvis, increase of temperature to  $37,3C$ , weight loss. At examination: anemia, blood sedimentation-70 mm/h, general protein-110 g/l, moderate proteinuria, sediment is without pathology. At roentgenologic inspection there are destructive changes in the bones of skull. What is the most credible diagnosis:

- A. Multiple myeloma
- B. Cancer of stomach
- C. Bechterew`s disease
- D. Metastases of tumor in bones
- E. Chronic glomerulonephritis

61. The patient M., 52 years old, appealed to doctor with complaints on itch of skin after washing, heavy feeling in head, dizziness. Objectively: face, neck, extremities are of crimson color, AP-180/100, spleen +4 sm. What is the most reliable diagnosis:

- A. Allergic dermatitis
- B. Hypertonic illness
- C. Chronic myeloleukemia
- D. Erythremia
- E. Cirrhosis of liver

62. The patient C., 60 years old, complains on dyspnea. During many years he is suffering on chronic obstructive pulmonary disease. Objectively: diffuse cyanosis, obesity is expressed, AP-180/110, dry rales, liver and spleen are increased. In blood test: E- $6,6 \times 10^{12}/l$ , Hb-190 g/l, L- $15 \times 10^9/l$ , T- $529,0 \times 10^9/l$ , blood sedimentation-2 mm/h. What research can help to set the diagnosis:

- A. Research of function of external breathing
- B. US investigation of abdominal cavity
- C. Sternal puncture
- D. Sciagraphy of thorax
- E. Puncture of liver

63. The pregnant, 18 years old (20 weeks), complains on weakness, dyspnea at physical load. At women`s dispensary she was not observed before. Objectively: skin is pale with lemon tint; face is puffy, language - bright red, liver +3 sm. In blood test: E-  $3,0 \times 10^{12}/l$ , Hb-88 g/l, CI-1,4; L- $3,8 \times 10^9/l$ , T- $130,0 \times 10^9/l$ ; e-3%; r/n-4%; s/n-52%; l- 36%; m-5%; macrocytosis, blood sedimentation-38 mm/h. What research can help to set the diagnosis:

- A. Sternal puncture.
- B. Definition of concentration of folates in red corpuscles of blood
- C. Definition of ferritin of blood
- D. Definition of B<sub>12</sub> in blood
- E. Definition of iron of blood serum

64. At the 65 years old man B<sub>12</sub> deficiency anemia is diagnosed. In a week after the appointed treatment control inspection of peripheral blood is conducted. What index will be the early criterion for estimation of efficiency of the conducted therapy:

- A. Increase of amount of reticulocytes
- B. Increase of level of hemoglobin
- C. Decline of colour index of blood
- D. Normoblastic blood formation
- E. Increase of number of leukocytes

65. The patient, 20 years old, passed regular course of polychemotherapy by the scheme of "VAMP" concerning acute lymphoblastic leukemia. He has complaints on weakness, hair fall. In blood test: E- $3,5 \times 10^{12}/l$ , Hb-105 g/l, CI-0,9; L- $4,2 \times 10^9/l$ , T- $120,0 \times 10^9/l$ . What picture of bone marrow can testify about remission:

- A. Content of blastic cells to 5 %
- B. Content of blastic cells to 15 %
- C. Content of blastic cells to 10 %
- D. Content of blastic cells to 1 %
- E. Absence of blastic cells

66. The patient O., 62 years old, with increased feed, complains on headache, dizziness, pressing pain in the area of heart at moderate physical load. Objectively: face and hands with hyperemia, accent of the second tone above aorta, AP-170/104, liver +3 sm, spleen +2 sm. In blood test: E- $6,2 \times 10^{12}/l$ , Hb-186 g/l, L- $11,2 \times 10^9/l$ , blood sedimentation-1 mm/h. On ECG there is flatten wave T in V<sub>1</sub>-V<sub>4</sub>. What previous diagnosis can be put in this case:

- A. Cushing`s disease
- B. Hypertonic illness of II stage
- C. Erythremia
- D. Secondary erythrocytosis on background of obesity
- E. Cirrhosis of liver

67. At the 62 years old woman, who used butadion in connection with pain in joints, pain in throat, dry cough, and febrile temperature appeared. What changes it is possible to assume in general analysis of blood:

- A. Increase of number of mature granulocytes
- B. Decrease of number or absence of granulocytes
- C. Increase of number of ripening granulocytes
- D. Increase of number of lymphocytes
- E. Decrease of number or absence of lymphocytes

68. The youth of 18 years old is hospitalized with complaints on nose bleeding, which doesn`t succeed to be stopped, and hard pain in right elbow joint. He is ill from

babyhood. Objectively: elbow joint is increased, perceptible hot, knee-joints are deformed, motions in them are limited, heart rate-90, AP-105/70. In blood test: E- $3,2 \times 10^{12}/l$ , Hb-110 g/l, CI-0,7, L- $5,6 \times 10^9/l$ , T- $220,0 \times 10^9/l$ , blood sedimentation-14 mm/h. What preparation it is necessary to use in treatment:

- A. Packet red cells
- B. Calcii chloridi
- C. Codginate
- D. Aminocapron acid
- E. Vikasol

69. At the 65 years old woman, who used butadion in connection with pain in joints, pain in throat, febrile temperature, chill appeared. Doctor suspected agranulocytosis. Agranulocytosis is:

- A. Decrease of maintenance of granulocytes in blood
- B. Increase of maintenance of agranulocytes in blood
- C. Decrease of number of neutrophilic granules with the simultaneous increase of their size
- D. Loss of granules in granulocytes
- E. Appearance of granules in agranulocytes

70. The 42 years old man complains on palpitation, nose-bleeding. Objectively: on the skin of extremities and trunk petechia-spotal hemorrhages, lymphatic knots are not palpated, pulse-116, liver is not increased, spleen is not palpated. In blood analysis there is pancytopenia. About what disease it is possible to think:

- A. Verlgoph`s disease
- B. Acute leukemia
- C. Aplastic anemia
- D. Hemorrhagic vasculitis
- E. Acute agranulocytosis

71. The 63 years old woman is hospitalized in the hematological separation with complaints on pressing retrosternal pain, dyspnea, paresthesia of feet. Objectively: temperature of body  $37,6^{\circ}C$ , yellowness of white of the eyes, liver +2 sm. In blood test: E- $1,5 \times 10^{12}/l$ , Hb-70 g/l, CI-1,3, L- $2,6 \times 10^9/l$ , T- $132,0 \times 10^9/l$ , reticul-0,6%, bilirubin is moderately increased due to indirect. In myelogram: megaloblastic type of blood formation. What is the most credible diagnosis:

- A. Follic deficiency anemia
- B. B<sub>12</sub> deficiency anemia
- C. Inborn hemolytic anemia
- D. Gained hemolytic anemia
- E. Iron deficiency anemia

72. The sick T., 24 years old, is hospitalized in the hematological separation with complaints on pain in lumbar area and right subcostum, acute weakness. In the anamnesis there was flu a week ago. Objectively: skin is pale-icteric, liver +2 sm, sensible. In blood: E- $2,0 \times 10^{12}/l$ , Hb-64 g/l, CI-0,9, L- $12,0 \times 10^9/l$ ; reticul-8%, bilirubin-38 mkml/l, mainly due to indirect, the direct Coombs` test is positive. What is the

previous diagnosis:

- A. Hypoplastic anemia
- B. Markiafav – Mikelli`s disease
- C. Inborn hemolytic anemia
- D. Adison – Biermer disease
- E. Gained immune hemolytic anemia

73. The patient T., 34 years old, complains on chill, osalgia, nose-bleeding. Objectively: temperature of body-38,6°C, skin is pale, pulse-120, AP-100/70. In blood test: E- $2,7 \times 10^{12}/l$ , Hb-90 g/l, CI-0,9; L- $38,0 \times 10^9/l$ , blast-68%, r/n-2 %, s/n-8%, l-20%, m-2%, T- $25 \times 10^9/l$ , blood sedimentation-46 mm/h. What disease it follows to suspect at the patient:

- A. Acute leukemia.
- B. Leukemoid reaction
- C. Chronic lympholeukemia
- D. Chronic myeloleukemia
- E. Acute agranulocytosis

74. The 63 years old man appealed with complaints on acute general weakness, bad appetite, weight loss, heavy feeling in the left subcostum. In blood test: E- $3,4 \times 10^{12}/l$ , Hb-102 g/l, CI-0,9; L- $190 \times 10^9/l$ , bas-3%, eozin-8%, blast-1%, promyel-2%, myel-2%, metamyel-13%, youn-12%, r/n-16%, s/n-31%, l-9%, m-9%, T- $240,0 \times 10^9/l$ , blood sedimentation-30 mm/h. What is the previous diagnosis:

- A. Leukemoid reaction of myeloid type
- B. Acute leukemia
- C. Chronic myeloleukemia
- D. Erythromyelosis
- E. Chronic lympholeukemia

75. The 65 years old man complains on weakness, dyspnea, numbness of lower extremities. Objectively: skin is pale with subicteric tint, language is bright red, liver +3 sm. At FGDS there is atrophy of mucous membrane. In blood test: E- $2,4 \times 10^{12}/l$ , Hb-66 g/l, CI-1,4, L- $2,8 \times 10^9/l$ , e-2%, r/n-4%, s/n-50%, l-42%, m-5%, reticul-0,5%, T- $120,0 \times 10^9/l$ , macrocytosis, blood sedimentation-26 mm/h. What disease it follows to suspect at the patient:

- A. Hemolytic anemia
- B. Iron deficiency anemia
- C. Hypoplastic anemia
- D. B<sub>12</sub> deficiency anemia
- E. Follic deficiency anemia

76. The 35 years old woman, is delivered in clinic after loss of consciousness on the street, complains on acute weakness, dizziness. Objectively: pallor of skin, there are hemorrhages on the skin of forearms and thighs, lymphatic knots are not increased, pulse-100, AP-90/60, liver and spleen are not increased. In blood test: E- $1,5 \times 10^{12}/l$ , Hb- 42 g/l, CI-0,8, reticul-0,1%, L- $1,0 \times 10^9/l$ , e-1%, r/n-1%, s/n-45%, l-51%, m-2%, T-  $50,0 \times 10^9/l$ , blood sedimentation-45 mm/h. What is the most reliable diagnosis:

- A. Verlgoph`s disease
- B. Aplastic anemia
- C. Iron deficiency anemia
- D. Hemorrhagic vasculitis
- E. Posthemorrhagic anemia

77. The 37 years old man complains on weakness, periodic attacks of pain in the right subcostum, which appeared 2 years ago. In the anamnesis: from 16 years periodically icteric colour of skin is marked. Objectively: skin and mucouses are icteric, hepatosplenomegaly. In blood test: E- $2,4 \times 10^{12}/l$ , H-84 g/l, CI-1,0, reticul-4%, blood sedimentation-22 mm/h, osmotic resistance of erythrocytes is reduced, microspherocytosis, indirect bilirubin-56 mkmol/l, direct-8,2 mkmol/l. What pathogenesis of anemia the patient has:

- A. Genetic defect of membrane of erythrocytes
- B. Disturbance of structure of molecule of hemoglobin
- C. Disturbance of structure or synthesis of chains of globin
- D. Influence of antibodies on erythrocytes
- E. Toxic hemolysis

78. The 48 years old man was ill on flu 2 weeks ago, now he complains on dyspnea, palpitation. Objectively: skin and mucouses are icteric, temperature of body- $37,8^{\circ}C$ , pulse-120, AP-105/70, spleen is palpated. In blood test: E- $2,0 \times 10^{12}/l$ , Hb-70 g/l, CI-1,0, reticul-18%, osmotic resistance and middle diameter of erythrocytes are norm, general bilirubin-76 mkmol/l, indirect-63 mkmol/l. What is the most reliable diagnosis:

- A. Markiafav – Mikelli`s disease
- B. Hereditary microspherocytosis
- C. Benign hyperbilirubinemia
- D. Autoimmune hemolytic anemia
- E. Cholecystolithiasis

79. The patient P., 58 years old, complains on causeless appearance of bruises on skin, hemorrhage of gums, dizziness. Objectively: the mucouses and skin are pale, with numerous hemorrhages of different remoteness, lymphatic knots are not increased, pulse-100, AP-110/70. In blood test: E- $3,0 \times 10^{12}/l$ , Hb-92 g/l, CI-0,7, anisocytosis, poikilocytosis, L- $10,0 \times 10^9/l$ , e-2%, r/n-12%, s/n-68%, l-11%, m-7%, blood sedimentation-12 mm/h. What laboratory index it is expedient to define for clarification of diagnosis:

- A. Osmotic resistance of erythrocytes
- B. Content of reticulocytes
- C. Clotting time of blood
- D. Content of thrombocytes
- E. Fibrinogen

80. The 30 years old woman first appealed to doctor with complaints on frequent nose-bleedings, appearance of bruises on body. She is ill for half a year. After examination the diagnosis of idiopathic thrombocytopenic purpura is set. From what it is necessary to begin treatment of the sick:

- A. Transfusion of thrombocyte concentrate
- B. Cytostatic preparations
- C. Immunoglobulin
- D. Splenectomy
- E. Glucocorticoids

81. The 60 years old woman during 4 years is under surveillance of doctor-hematologist concerning chronic lympholeukemia. During last 6 months she had pneumonia twice. In blood test: E- $3,1 \times 10^{12}/l$ , Hb-90 g/l, CI-0,9, L- $160,0 \times 10^9/l$ , e-1%, r/n-2%, s/n-21%, l- 74%, m-2%, blood sedimentation-20 mm/h, general protein-60 g/l, gamma-globulin- 14%. What changes in blood are more credible to assist development of complications at the sick:

- A. Decrease of hemoglobin
- B. Hypogammaglobulinemia
- C. Increase of leucocytes
- D. Increase of lymphocytes
- E. Hypergammaglobulinemia

82. The 72 years old man complains on rapid fatigability, perspiration, which appeared two months ago. Objectively: t- $37,7^{\circ}C$ , liver +2 sm, spleen +8 sm, dense, sensible. In blood test: E- $3,2 \times 10^{12}/l$ , Hb-110 g/l, CI-1,1; L- $255 \times 10^9/l$ , bas-7%, e-9%, promyel-2%, myel-22%, metamyel-20%, r/-17%, s/n-15%, l-8%, blood sedimentation-15 mm/h, T- $250,0 \times 10^9/l$ . What disease is more reliable stipulated such changes in blood:

- A. Erythremia
- B. Acute myeloblastic leukemia
- C. Non – Hodgkin`s lymphoma
- D. Chronic myeloleukemia
- E. Leukemoid reaction of myeloid type

83. The 60 years old woman complains on weakness, rapid fatigability for a year. Heavy feeling in the left subcostum, subfebrile temperature, weight loss joined a month ago. Objectively: skin is pallor, liver +2 sm, spleen +7 sm, dense, moderately painful. In blood test: E- $3,0 \times 10^{12}/l$ , Hb-110 g/l, CI-1,1, L- $280,0 \times 10^9/l$ , blast cells-23%, bas-6%, e- 6%, myel-10%, r/n-19%, s/n-7%, l-19%, T- $180 \times 10^9/l$ , blood sedimentation-32 mm/h. What is the most reliable diagnosis:

- A. Chronic myeloleukemia, blastic crisis
- B. Acute myeloblastic leukemia
- C. Acute lymphoblastic leukemia
- D. Chronic lympholeukemia
- E. Leukemoid reaction of myeloid type

84. The 28 years old woman complains on weakness, periodic increase of temperature of body to  $39,0^{\circ}C$ , perspiration at night-time, weight loss. Objectively: skin is pale, increased cervical, supraclavicular and inguinal lymphatic knots, which are palpated by size to 1,5-2 sm, dense, unpainful. In blood test: E- $3,0 \times 10^{12}/l$ , Hb-90 g/l, CI-0,8, L- $13,0 \times 10^9/l$ , e-3%, r/n-9%, s/n-78%, l-7%, m-3%, blood sedimentation-48 mm/h. Suspicion about lymphogranulomatosis appeared, biopsy of lymphatic knot is appointed

to. The presence of what changes is reliable at the research:

- A. Proliferation of prolymphocytes and lymphoblasts
- B. Proliferation of lymphocytes, lymphoblasts
- C. Berezovsky – Shternberg cells
- D. Proliferation of prolymphocytes and lymphocytes
- E. Proliferation of lymphocytes and plasmocytes

85. At the 68 years old woman in blood test anemia and increase of blood sedimentation were discovered. In the anamnesis: during last 1,5 years there were fractures of bones twice. Objectively: pallor of skin, painful senses at percussion of ribs. In blood test: E- $2,4 \times 10^{12}/l$ , Hb-76 g/l, CI-0,9, L- $4,8 \times 10^9/l$ , e-1%, r/n-4%, s/n-60%, l-28%, m-7%, blood sedimentation-76 mm/h, T- $140 \times 10^9/l$ . In analysis of urine: protein-3,3 g/l, L-6-8, E-8-10. Conducting of what research is more expedient for confirmation of diagnosis:

- A. Bence-Jones protein of urine
- B. Biopsy of kidneys
- C. Urgent urography
- D. Sternal puncture
- E. Immunoglobulins of blood

86. The 28 years old woman appealed to doctor with complaints on hemorrhages on the front surface of trunk and extremities, bleeding from gums. In blood test: T- $20,0 \times 10^9/l$ ; in bone marrow number of megakaryocytes is increased. Treatment with glucocorticoids was conducted and gave positive effect. What disease was diagnosed at the woman:

- A. Hemorrhagic vasculitis
- B. Hemophilia
- C. Randyu-Osler`s disease
- D. DIC - syndrome
- E. Idiopathic thrombocytopenic purpura

87. The 28 years old sick appealed to internist with complaints on weakness, dizziness, nose-bleedings. She is ill for 4 months. Objectively: there are hemorrhages in the area of stomach and thighs by size 1-2 sm of different color. Liver and spleen are not increased. In blood test: E- $2,6 \times 10^{12}/l$ , Hb-90 g/l, CI-0,8, iron of blood serum-8,0 mkml/l, L- $4,2 \times 10^9/l$ , e-2%, r/n-7%, s/n-40%, m-6%, l-45%, T- $47,1 \times 10^9/l$ , blood sedimentation-27 mm/h. Your previous diagnosis:

- A. Idiopathic thrombocytopenic purpura
- B. Hemolytic anemia
- C. Chronic iron deficiency anemia
- D. Chronic lympholeukemia
- E. Aplastic anemia

88. The patient P., 50 years old, complains on weakness, dizziness, heavy feeling in the upper half of stomach, paresthesias in finger-tips of hands and feet. Objectively: yellowness of skin, language of raspberry color, hepatomegaly. At blood: E- $2,3 \times 10^{12}/l$ , Hb-90 g/l, reticul-0,2%, CI-1,3, macrocytosis, Jolly`s bodies. Specify, what is not characteristic for this anemia:

- A. Paresthesia

- B. Ataxia
- C. Muscular atrophy
- D. Delirium, hallucinations
- E. Decrease of intellect

89. Patient A., 26 years old, complains on fever, itch of skin, perspiration at night. Objectively: temperature of body-38,6C, right supraclavicular lymphatic knot is palpated, it is increased, mobile. What research is the most informative for confirmation of diagnosis:

- A. Albuminous fractions of blood
- B. General analysis of blood
- C. Survey sciagraphy of pectoral cavity
- D. Immunogram
- E. Puncture of lymphatic knot

90. At the 28 years old sick expressed icterus appeared after self-treatment of flu with unsteroid anti-inflammatory preparations and antibiotics. At examination increased liver, oliguria, dark colouring of urine are discovered. Laboratory researches: E-  $2,0 \times 10^{12}/l$ , Hb-60 g/l, CI-0,9, L- $12 \times 10^9/l$  with change of formula to the left, reticul-14%. The increase of indirect fraction of bilirubin is determined in serum of blood. The Coombs` test is positive. About what disease it is possible to think:

- A. Acute glomerulonephritis
- B. Aplastic anemia
- C. Toxic hepatitis
- D. Acute leukemia
- E. Autoimmune hemolytic anemia

91. The patient S., 73 years old, appealed to neurologist with complaints on pain in lumbar area. The doctor diagnosed radiculitis. After the conducted physical therapy condition of patient was not improved. After additional research on R-grams of bones of spine and pelvis osteoporosis and defects of bones were found out. In blood test: moderate normochromic anemia, in urine - proteinuria, general protein of blood serum - 97 g/l. About what disease it follows to think:

- A. Osteochondrosis with radicular syndrome
- B. Senil osteoporosis
- C. Multiple myeloma
- D. Metastases in bones
- E. Lymphogranulomatosis

92. The patient O., 31 years old, appealed to doctor with complaints on fever, weight loss, itch of skin. At objective inspection increased unpainful lymphatic knot in the left supraclavicular area is discovered. Liver and spleen are not increased. In blood test: Hb-80 g/l, L- $16,6 \times 10^9/l$ , e-2%, r/n-8% s/n-60%, l-24%, m-6 %, blood sedimentation-55 mm/h, T- $190 \times 10^9/l$ . What is the most expedient research for confirmation of diagnosis:

- A. FGDS
- B. Trepanobiopsy
- C. Sternal puncture



- D. Bens-Jones protein of urine
- E. Biopsy of lymphatic knot

93. The patient Y., 18 years old, is hospitalized with bleeding from incised wound of palm, which lasted 2 days. Considerable bleeding at wounds was observed from childhood. The similar phenomena are marked at cousin for the line of mother. Skin is pale, knee and ankle joints are increased, deformed, motions in them are limited. Laboratory researches: number of thrombocytes- $320,0 \times 10^9/l$ , bleeding time by Dyuke-3 minutes. What preparations it is necessary to enter the patient:

- A. Cryoprecipitate
- B. Heparin
- C. Prednizolon
- D. Thrombocytaric mass
- E. Calcii gluconati

94. The sick, 30 years old, complains on weakness, hemorrhage of gums, increase of temperature of body, pain in throat. There was contact with aniline dyes during 8 years. At examination: skin is pale, with numerous petechias and ecchymoses, liver and spleen are not palpated. In blood test: E- $2,5 \times 10^{12}/l$ , Hb-80 g/l, CI-0,9, L- $2,4 \times 10^9/l$ , Thr- $50,0 \times 10^9/l$ , blood sedimentation-40 mm/h. In myelogram: bone marrow is with acutely reduced number of cells. What diagnosis can be suspected at the patient:

- A. Acute leukemia
- B. Hypoplastic anemia
- C. B<sub>12</sub> deficiency anemia
- D. Verlgoph`s disease
- E. Agranulotcytosis

95. The sick I., 41 years old, complains on pain in throat, ribs and breastbone. At examination: t of body -  $38,0^{\circ}C$ , skin is pale, with presence of petechias and bruises, pulse 100, insignificant hepatosplenomegaly, there are numerous ulcers with necrotic edges on the mucous of mouth. In blood test: E- $2,5 \times 10^{12}/l$ , Hb-70 g/l, CI-0,9, L- $28,0 \times 10^9/l$ , blast-78%, s-4%, l-13%, m-5 %, T- $17,5 \times 10^9/l$ . blood sedimentation-60 mm/h. What is the most reliable diagnosis:

- A. Acute leukemia.
- B. Diphtheria
- C. Hemorrhagic vasculitis
- D. Chronic hepatitis
- E. Stomatitis

96. The patient T., 62 years old, complains on permanent pain in breastbone and loin, general weakness, stiffness. On the sciagram of spine: clinoid deformation of Thx, diffuse osteoporosis of almost every vertebra. In blood test: Hb-90 g/l, E- $2,1 \times 10^{12}/l$ , L- $3,8 \times 10^9/l$ , Thr- $170,0 \times 10^9/l$ , blood sedimentation-78 mm/h. General protein of blood-110 g/l. In urine: protein-2,9 g/l, L-2-4, E-4-6, are changed, hyalin cylinders-2-4. In myelogram-18% of plasma cells. What is the most reliable diagnosis:

- A. Compressional break of vertebra
- B. Metastases of tumor in spine

- C. Amyloidosis of kidneys
- D. Multiple myeloma
- E. Acute leukemia

97. The 38 years old woman, who suffers on menorrhagias, complains on twinkling of "spots" before eyes, dizziness, fragility of nails, hair fall. At examination: skin is pale and dry, pulse – 100, rhythmic. In blood test: E- $3,3 \times 10^{12}/l$ , Hb-90 g/l, CI-0,7, reticul-0,8%, L- $4,8 \times 10^9/l$ , e-2%, r/n-3%, s/n-62%, l-25%, m-10%, hypochromia of erythrocytes, microcytosis, iron of blood serum - 4,2 mkmol/l. What is the most reliable diagnosis:

- A. Hypoplastic anemia
- B. Hemolytic anemia
- C. B<sub>12</sub> deficiency anemia
- D. Thalassemia
- E. Iron deficiency anemia

98. The sick F., 49 years old, complains on pain in the left subcostum, general weakness, rapid fatigability, weight loss. Objectively: skin and mucouses are moderately pale, pulse-92, rhythmic, liver +4 sm, painless, dense, lower edge of spleen is at the level of umbilicus. In blood test: E- $3,0 \times 10^{12}/l$ , Hb-90 g/l, CI-0,9, L- $540,0 \times 10^9/l$ , promyel-10%, myel-13%, youn-11%, r/n-28%, s/n-22%, e-5%, bas-4%, l-4%, m-3%, T-  $345,0 \times 10^9/l$ , blood sedimentation-38 mm/h. What is the most reliable diagnosis:

- A. Leukemoid reaction of myeloid type
- B. Chronic myeloleukemia
- C. Budd – Chiari syndrome
- D. Cirrhosis of liver
- E. Chronic lympholeukemia

99. The 45 years old man complains on general weakness, dizziness. During 15 years there is ulcer of duodenum. Objectively: skin is pale, pulse-100, AP-100/70. At subsequent inspection anemia, low colour index in blood test are discovered.

Colour index - is:

- A. Ratio of the volume of form elements of blood to the volume of blood
- B. Degree of admission of every erythrocyte with hemoglobin
- C. Increase of number of erythroblasts in bone marrow
- D. Percent correlation of separate forms of leukocytes of blood
- E. Blood sedimentation

100. The 60 years old woman complains on general weakness, sense of overfill in epigastrium, nausea, belch after meal. She is ill over 10 years. Objectively: skin and mucouses are pale, pulse-98, AP-115/75. In blood test: E- $2,0 \times 10^{12}/l$ , Hb-100 g/l. Antibodies to oxyntic cells of stomach are found out. What is the most credible reason of development of anemic syndrome at the sick:

- A. Production of antibodies to gastromucoprotein
- B. Disturbance of synthesis of hemoglobin
- C. Disturbance of synthesis of erythropoetin
- D. Disturbance of suction of iron
- E. Increase of charge of iron

101. The patient P., 60 years old, complains on general weakness, feeling of weight in epigastrium and belch after meal. Objectively: skin and of mucous are pale, pulse- 110, AP-115/70. In blood test: E- $2,0 \times 10^{12}/l$ ; Hb-100 g/l; CI-1,5, blood sedimentation-28 mm/h. Antibodies to oxyntic cells of stomach are found out. What is the best tactic of treatment of anemic syndrome at the sick:

- A. Preparations of hydrochloric acid
- B. Vitamin B<sub>12</sub> intramuscular
- C. Preparations of iron per os
- D. Preparations of iron parenteral
- E. Transfusion of packet red cells

102. The 45 years old man complains on general weakness, dizziness. During 15 years there is ulcer of duodenum. Objectively: skin is pale, pulse-100, AP-90/70. What primary inspection must be conducted at the patient:

- A. General blood test, maintenance of ferritin of blood
- B. General blood test, FGDS
- C. Content of iron of blood
- D. Content of ferritin of blood
- E. General analysis of blood, maintenance of iron of blood

103. The 54 years old woman complains on weakness, numbness of finger-tips, shaky step, heartburn in language. Objectively: skin is pale, pulse-110, systolic noise above the apex of heart, language of bright red. In blood test: E- $2,3 \times 10^{12}/l$ , Hb-58 g/l, reticul- 0,2%, CI-1,3, macrocytosis, L- $2,8 \times 10^9/l$ , blood sedimentation-40 mm/h., T- $120,0 \times 10^9/l$ . What pathogenetic factor conducts in development of anemia:

- A. Tumor oppression of normal blood formation
- B. Intravassal hemolysis
- C. Disturbance of synthesis of hemoglobin
- D. Disturbance of transport of iron from reticuloendothelial depot
- E. Disturbance of differentiation of erythroid cells

104. At the sick, 42 years old, after acute respiratory disease, fever is saved. At examination: on the skin of trunk and extremities - petechia-macular rash, lymphatic knots of arm-pits are increased, soft, painless, tachycardia, systolic noise above all auscultative points, liver and spleen are increased. In blood test: Hb-100 g/l, E- $3,1 \times 10^{12}/l$ , CI-1,0, L- $3,5 \times 10^9/l$ , blast-33%, r/n-3%, s/n-35%, e-1%, l-20%, m-8%, blood sedimentation-20 mm/h., T- $55,0 \times 10^9/l$ . What diagnosis is most credible:

- A. Chronic myeloleukemia
- B. Infectious endocarditis
- C. Acute leukemia
- D. Verlgoph`s disease
- E. Lymphogranulomatosis

105. The patient T., 19 years old, marked growing weakness, skin hemorrhages, nose-bleedings, subfebrile temperature during last 2 months. Lymphatic knots, liver, spleen, are not increased. In blood test: E- $1,5 \times 10^{12}/l$ , Hb-50 g/l, reticul-0,1%, CI-0,9, L-

1,8x10<sup>9</sup>/l, e-1%, r/n-3%, s/n-58%, l-33%, m-5%, T-30,0x10<sup>9</sup>/l, blood sedimentation-60 mm/h., iron of blood serum -15 mkmol/l. What is the most credible diagnosis:

- A. Hemolytic anemia
- B. Acute leukemia
- C. Aplastic anemia
- D. B<sub>12</sub> deficiency anemia
- E. Iron deficiency anemia

106. The 37 years old woman complains on muscular weakness, palpitation, hard swallowing of meal, has a desire to eat chalk. Objectively: satisfactory feed, skin is pale, pulse-116, AP-90/70. In blood test: E-3,1x10<sup>12</sup>/l, Hb-80 g/l, CI-0,7, reticul-0,8%, L-4,7x10<sup>9</sup>/l, e-2%, r/n-3%, s/n-64%, l-26%, m-5%, blood sedimentation-15 mm/h. Iron of blood serum-4,3 mkmol/l, general protein-70 g/l. The deficit of what element stipulated the origin of the disease:

- A. Protein
- B. Vitamin B<sub>6</sub>
- C. Vitamin B<sub>12</sub>
- D. Iron (Fe<sup>++</sup>)
- E. Folic acid

107. The 23 years old student complains on pain in knee-joints, increase of temperature of body. In the anamnesis: there was angina 10 days ago. Objectively: t-37,8°C, heart rate-120, AP-105/70, knee joints, slightly swollen, there are symmetric hemorrhagic rash on the skin of shins. In blood test: L-8,4x10<sup>9</sup>/l, blood sedimentation-22 mm/h., T-190,0x10<sup>9</sup>/l, prothrombin index-90%. Diurnal proteinuria-0,66 g/l., in analysis of urine by Nechiporenko: L-2000, E-9000 in 1mkl. What is the most credible diagnosis:

- A. Verlgoph's disease
- B. Hemorrhagic vasculitis
- C. Acute rheumatic fever
- D. Systemic lupus erythematosus
- E. Nodular periarteriitis

108. The 38 years old man, who is suffering on hemorrhoid, complains on twinkling of "spots" before eyes, dizziness. At examination: pallor of skin, pulse-100, AP-90/60, systolic noise above the apex of heart. In blood test: Hb-95 g/l, E-3,3x10<sup>12</sup>/l, CI-0,7, L-9,8x10<sup>9</sup>/l, e-2%, r/n-3%, s/n-70%, l-24%, m-1 %, blood sedimentation-25 mm/h., hypochromia of erythrocytes, iron of blood serum-5,2 mkmol/l. What is the most reliable reason of sistolic noise:

- A. Narrowing of main vessels
- B. Myocarditis
- C. Tachycardia
- D. Low AP
- E. Acceleration of blood flow

109. The sick C., 39 years old, marks weakness, dizziness, dyspnea, muscular weakness during 4 months. In the anamnesis: fibromyoma of uterus, uterine bleeding. In blood test: Hb-80 g/l, E-2,2x10<sup>12</sup>/l, CI-0,7, blood sedimentation-28 mm/h., anisocytosis,

poikilocytophilia, iron of blood serum-5,3  $\mu\text{mol/l}$ .Tactic of conducting of the sick:

- A. Dietary nutrition
- B. Complex of vitamins
- C. Permanent reception of preparations of iron
- D. Dietary nutrition, course reception of preparations of iron
- E. Dietary nutrition, complex of vitamins

110. The patient, 19 years old, complains on general weakness, pain in bones, fever. At examination systematic increase of lymphatic knots, hepatolienal syndrome are found out. In blood test: E- $2,2 \times 10^{12}/\text{l}$ , Hb-67 g/l, L- $20 \times 10^9/\text{l}$ , blast-45%, r/n-3%, s/n-7%, l-40%, m-5%, T- $45,0 \times 10^9/\text{l}$ , blood sedimentation-55 mm/h. What diagnosis can be set at the patient:

- A. Acute leukemia
- B. Chronic myeloid leukemia
- C. Chronic lympholeukemia
- D. Hypoplastic anemia
- E. Agranulocytosis

111. At the patient T., 68 years old, systematic increase of lymphatic knots, hepatosplenomegaly, icterus are found out. In blood test: E- $2,4 \times 10^{12}/\text{l}$ , Hb-65 g/l, reticul-10%, T- $190 \times 10^9/\text{l}$ , L- $250 \times 10^9/\text{l}$ , r/n-1%, s/n-7%, l-87%, m-5%, blood sedimentation-55 mm/h. What complication of basic disease can be suspected on clinic- laboratory indexes:

- A. Toxic neutropenia
- B. Aplastic anemia
- C. Autoimmune hemolysis
- D. Agranulocytosis
- E. Hepatitis

112. The patient with chronic myeloleukemia complains on acute pain in the left subcostum. Objectively: protective tension of muscles is discovered at palpation in the projection of the left part of stomach, the pole of spleen is palpated. At auscultation of subcostum noise of friction is marked. What complication does it follow to suspect:

- A. Renal colic
- B. Strangulation of diaphragmatic hernia
- C. Acute pancreatitis
- D. Infarct of spleen
- E. Torsion of colon

113. The patient S., 57 years old, at examination widespread osteoporosis of vertebra is found out. In blood test: E- $3,4 \times 10^{12}/\text{l}$ , Hb-80 g/l, T- $145,0 \times 10^9/\text{l}$ , L- $5,6 \times 10^9/\text{l}$ , e-3%, r/n-5%, s/n-57%, l-29%, m-6%, blood sedimentation-55 mm/h. In analysis of urine: protein-0,264 g/l. General protein of blood is 108 g/l. What research must be done for confirmation of diagnosis:

- A. Definition of circulating immune complexes
- B. Definition of level of parathyroid hormone
- C. Sternal puncture
- D. Densitometry

## E. Biopsy of kidneys

114. The sick L., 18 years, is hospitalized with bleeding from incised wound of palm, which lasted 2 days. Skin is pale, knee and ankle joints are increased, deformed, motions in them are limited. Laboratory researches: number of thrombocytes -  $420,0 \times 10^9/l$ , bleeding time by Dyuke-3 minutes, clotting time by Li-Uayt-27 min., prothrombin index-100%, fibrinogen-4 g/l. The prophylaxis of what complication needs to be conducted at the patient:

- A. Pathological fractures
- B. Posthemorrhagic anemia
- C. Thrombosis
- D. Aplastic anemia
- E. Infecting of hematoma

115. The 63 years old man marks headache during few years, periodic pressing pain in the area of heart. In the anamnesis: smoking more than 40 years; two packs of cigarettes a day. Objectively: face of red color, there are dry, whistling rales above lungs, AP-185/95. In peripheral blood: E- $6,5 \times 10^{12}/l$ , Hb-185 g/l, L- $6,0 \times 10^9/l$ , blood sedimentation-5 mm/h. T- $190 \times 10^9/l$ . What primary research needs to be conducted for clarification of diagnosis:

- A. US investigation of abdominal cavity, research of function of external breathing
- B. ECG, ECHOCS
- C. Sternal puncture
- D. Consultation of oculist
- E. US investigation of abdominal cavity

116. At the 23 years old man has fever, perspiration, dizziness, nasal and gingival bleeding, hemorrhages on the skin of trunk during a week. In blood test: Hb-72 g/l, E- $2,3 \times 10^{12}/l$ , L- $7,6 \times 10^9/l$ , blast-86%, s-5%, l-9%, blood sedimentation-23 mm/h. This state is characterized with all resulted syndromes, except:

- A. Anemic
- B. Hemorrhagic
- C. Ulcerous-necrotic
- D. Infectious
- E. Bronchospastic

117. The sick D., 56 years old, marks weakness, pain in bones, decline of appetite, headache during 4 months. Treated oneself at neurologist, passed completed course of manual therapy. Laboratory researches: anemia, general protein-112 g/l, blood sedimentation-68 mm/h, moderate proteinuria. On the sciagram of pelvis there are defects of bone fabric of the rounded form. What diagnosis can be set at the patient: A.

- A. Multiple myeloma
- B. Metastases of tumor in bones
- C. Systematic osteoporosis
- D. Amyloidosis of kidneys
- E. Chronic glomerulonephritis

118. The patient T., 62 years old, is hospitalized in comma. In blood test: Hb-38 g/l, E- $0,7 \times 10^{12}/l$ , CI-1,2, macrocytosis, reticul-0,2 %, leukopenia, thrombotcyopenia. In bone marrow: megaloblastic type of blood formation. Name the preparation for effective treatment of the sick:

- A. Preparations of iron intravenous
- B. Packet red cells intravenous drop
- C. Cyancobalamin intramuscular, packet red cells intravenous drop
- D. Preparations of iron intravenous, packet red cells intravenous drop
- E. Cyancobalamin intramuscular

119. The sick S., 50 years old, complains on general weakness, dizziness. Objectively: pallor of skin, language is as raspberry, at FGDS: atrophy gastritis, Ph-metry: achilia. In blood test: E- $2,3 \times 10^{12}/l$ , Hb-90 g/l, CI-1,2, macrocytosis, Jolly`s bodies, Cebot`s rings. For this condition is characteristic all signs, except:

- A. Pallor of skin with lemon tint
- B. Ataxia
- C. Paresthesia
- D. Exhaustion
- E. Subicteric colour of white of the eyes

120. The sick K., 60 years old, appealed with complaints on increased crabbiness, feeling of "wadding" feet, numbness of tiptoes. Objectively: skin is pale, white of the eyes are subicteric, liver +2 sm, spleen +2 sm, moderately painful. In blood test: E- $1,3 \times 10^{12}/l$ , Hb-58 g/l, CI-1,3, reticul-0,2%, blood sedimentation-30 mm/h., macrocytosis. What is needed to conduct for confirmation of diagnosis:

- A. Roentgenologic research of stomach
- B. Endoskopic research of stomach
- C. Sternal puncture
- D. Definition of osmotic resistance of erythrocytes
- E. Definition of iron of blood serum

121. The patient T., 20 years old, is hospitalized in clinic with complaints on pain in throat, bleeding from gums, increase of temperature to  $38,5^{\circ}\text{C}$ , osalgia. In blood test: E- $2,2 \times 10^{12}/l$ , Hb-60 g/l, L- $16,0 \times 10^9/l$ , blast-50%, r/n-1%, s/n-12%, l-32%, m -5%, CI-0,8, T- $76,0 \times 10^9/l$ , blood sedimentation-38 mm/h. Name the characteristic changes of blood at this condition:

- A. Anemia
- B. Leukotcytosis
- C. Reticulocytopenia
- D. Appearance of blastic cells
- E. All answers are true

122. The sick N., 54 years old, complains on weakness, palpitation at step, dyspnea. In blood test: E- $1,8 \times 10^{12}/l$ ; Hb-81g/l; CI-1,3; L- $3,2 \times 10^9/l$ , macrocytosis, T- $140,0 \times 10^9/l$ . General bilirubin-47,6 mkmol/l, mainly due to indirect. Doctor suspected B<sub>12</sub> deficiency anemia. What disease can not result the increased loss of vitamin B<sub>12</sub>:

- A. Intestinal vermins

- B. Dysbiosis
- C. Ulcer of duodenum
- D. Disease of liver
- E. Leukemia

123. At the patient C., 52, splenomegaly is found out without special subjective complaints. In blood test: Hb-132 g/l; L-52,0x10<sup>9</sup>/l, e-5%, bas-2%, myeloblast-6%, promyel-5%, myel-6%, youn-8%, r/n-4%, s/n-4 %, l-12%, m-6%; blood sedimentation-19 mm/h. It is expedient to use at treatment:

- A. Scheme "5+2"
- B. Cyclophosphan
- C. Hydrxiourea (hydrea)
- D. Prednizolon
- E. Treatment is not necessary

124. The sick M., 40 years old, entered clinic with complaints on nasal and uterine bleeding, presence of bruises on skin. In the anamnesis: viral infection 2 weeks ago. On the skin of trunk and extremities there are bruises. In blood test: E-2,6x10<sup>12</sup>/l, Hb-80 g/l, thrombocytes-25,0x10<sup>9</sup>/l, L-6,8x10<sup>9</sup>/l, leukocytar formula is without changes. Blood sedimentation-30 mm/h. Bleeding time by Dyuke is 13 minutes. Appoint treatment:

- A. Preparations of vitamin K
- B. Transfusion of packet red cells
- C. Transplantation of bone marrow
- D. Antihemophyl immunoglobulin
- E. Glucocorticoids

125. The girl, 18 years old, complains on acute pain in throat, increase of temperature of body to 40,0°C. In the anamnesis: acute respiratory infection a week ago, treated with analgin and biseptol; condition was improved briefly. At examination: there are necrotic ulcers on mucous of mouth cavity. In blood test: E-3,8x10<sup>12</sup>/l, Hb-115 g/l, T- 100,0x10<sup>9</sup>/l, L-0,8x10<sup>9</sup>/l, e-1%, r/n-1%, s/n-4%, l-77%, m-15%, plasma cells-2%. Blood sedimentation-46 mm/h. What treatment must be appointed:

- A. Antiseptic preparations locally
- B. Cytostatic preparations
- C. Antihistaminic preparations
- D. Stimulators of erythrocytopoiesis
- E. Glucocorticoids

126. The 49 years old man marks weakness, palpitation, icterus. Objectively: t of body - 37,8 °C, skin and white of the eyes are subicteric, liver +2 sm, spleen +3 sm. In blood test: E-3,0x10<sup>12</sup>/l, Hb-90 g/l, CI-0,9, reticul-18%, maximal osmotic resistance of erythrocytes -0,48, general bilirubin-76 mkmol/l, indirect-63 mkmol/l. What additional research it is expedient to appoint for clarification of diagnosis:

- A. Activity of glyco-6-phosphat-dehydrogenase
- B. Definition of transaminases
- C. Bilious pigments of urine
- D. The Coombs` test
- E. Markers of viruses of hepatitis



127. The patient B., 48 years old, complains on weakness, palpitation and dyspnea at the insignificant physical load. There are swelling of stomach, diarrhea, especially after milk products after toxicoinfection. Objectively: skin and mucous membranes are pale, at palpation painful thick intestine. In blood test: E- $3,1 \times 10^{12}/l$ , Hb-70 g/l, CI-0,65, L-  $4,0 \times 10^9/l$ , blood sedimentation-22 mm/h. What additional research it is expedient to conduct:

- A. Puncture of bone marrow
- B. Definition of vitamin B<sub>12</sub> in blood
- C. Coprogram
- D. The Coombs` test
- E. Definition of iron of blood serum

128. The sick M., 65 years old, who is observed at dermatologist concerning obtrusive itch of skin for a few years, lately marks headache. In the anamnesis: smoking during 40 years. Objectively: redder-cyanotic colour of face, AP-170/100, dry rales in lungs, splenomegaly. In blood test: E- $7,9 \times 10^{12}/l$ , Hb-210 g/l, L- $12,8 \times 10^9/l$ , T- $364,0 \times 10^9/l$ , blood sedimentation-1 mm/h., circulating blood volume-8,1 l. What treatment can be appointed:

- A. Exsanguination
- B. Leukeran
- C. Roentgenotherapy of spleen
- D. Roentgenotherapy of bone marrow
- E. Hydrea

129. The sick B., 53 years old, complains on increase of temperature of body, pain in joints, in stomach. At examination: skin and white of the eyes are pale, icteric, liver +3 sm, the pole of spleen is palpated. In blood test: Hb-72 g/l, CI-0,85, reticul-5%; blood sedimentation-26 mm/h, bilirubin-52 mkmol/l, indirect-48 mkmol/l; gamma-globulin-26%; ALT-0,7mkmol/l; the direct Coombs` test is positive. Your previous diagnosis:

- A. Autoimmune hemolytic anemia
- B. Chronic hepatitis
- C. Hereditary microspherocytic anemia
- D. Gilbert`s syndrome
- E. B<sub>12</sub> deficiency anemia

130. At the patient Z., 67 years old, with hepatolienal syndrome during 2 years there are increased peripheral lymphatic knots, which are soft, unconnected with adjoining fabrics at palpation. In blood test: L- $120,0 \times 10^9/l$ , r/n-1%, s/n-9%, l-87%, m-3%. Blood sedimentation-40 mm/h. In what age this disease is more frequent:

- A. At young
- B. At mature.
- C. At children
- D. At teenagers
- E. At elderly

131. The sick D., 28 years old, after supercooling noticed fever, pain in muscles and upper half of stomach. Moderate icterus, dark feces and urine appeared in a day. Objectively: skin, white of the eyes, mucous membranes are icteric, hepatosplenomegaly. In blood test: E- $2,8 \times 10^{12}/l$ , Hb-80 g/l, CI-0,8, T- $230,0 \times 10^9/l$ , L- $9,5 \times 10^9/l$ , reticul-7%, blood

sedimentation-20 mm/h. Biochemical blood test: general bilirubin-67,0  $\mu\text{mol/l}$ , indirect-58,3  $\mu\text{mol/l}$ , direct-8,7  $\mu\text{mol/l}$ . The Coombs` test is positive. What disease can be suspected at the sick:

- A. Gilbert`s syndrome
- B. Acute hepatitis
- C. Hemolytic anemia
- D. Rotor syndrome
- E. Cholecystolithiasis

132. The man, 42 years old, complains on headache, increase of arterial pressure to 200/120, itch of skin after soul. In blood test: E- $6,2 \times 10^{12}/\text{l}$ , Hb-200 g/l, T- $650,0 \times 10^9/\text{l}$ , L- $12,2 \times 10^9/\text{l}$ , e-7%, r/n-10%, s/n-64%, l-15%, m-4%, blood sedimentation-1 mm/h. What the itch of skin is linked with:

- A. Predominance of maintenance of granulocytes
- B. Allergic reaction
- C. Thrombocytosis
- D. Erythrocytosis
- E. All answers are true

133. The 20 years old youth has signs of hemolytic crisis. Similar crises were observed in 5 and 9 years old. In the anamnesis: operation concerning "wolfish fall" in age of 2 years. Objectively: yellowness of skin and white of the eyes, spleen is increased. In blood test: E- $2,3 \times 10^{12}/\text{l}$ , Hb-68 g/l, blood sedimentation-38 mm/h, microspherocytosis, decline of osmotic resistance of erythrocytes. What method of treatment is the most effective in this case:

- A. Plasmapheresis
- B. Splenectomy
- C. Glucocortikoids
- D. Cytostatic preparations
- E. Hemosorbtion

134. The woman, 68 years old, hospitalized with complaints on pain in ribs, general weakness. Objectively: skin is pale; pain is marked at pressure on thorax. In blood test: E- $2,6 \times 10^{12}/\text{l}$ , Hb-78 g/l, L- $6,1 \times 10^9/\text{l}$ , blood sedimentation-84 mm/h; glucose of blood-5,2 mmol/l; general protein-100 g/l. In analysis of urine: specific weight-1015, protein-4,0 g/l, E-1-3; L-2-3. What research is contra-indicated:

- A. Sternal puncture
- B. Excretory urography
- C. Survey urogram
- D. Biopsy of kidney
- E. US investigation of kidneys

135. The sick L., 29 years old, appealed to internist concerning growing weakness, pain in bones, fever. At examination: pallor of skin, there are petechial-macular rash on the skin of trunk and extremities. Subaxillary lymphatic knots are increased to 1,5x2,0 sm, soft, painless. In blood test: E- $3,1 \times 10^{12}/\text{l}$ ; Hb-80 g/l, CI-0,8, L- $2,2 \times 10^9/\text{l}$ ; blast-36%, r/n-3%, s/n-16%, l-41%, m-4%, Thr- $40,0 \times 10^9/\text{l}$ ; blood sedimentation-44 mm/h. Aleukemic leukemia – is:

- A. Appearance of blastic cells in blood
- B. Absence of blastic cells in blood
- C. Number of blastic cells is increased in myelogram
- D. Appearance of reticulocytes in blood
- E. Decrease of leukocytes in blood

136. The 40 years old woman, who suffers on menorrhagia, complains on twinkling of "spots" before eyes, dizziness, fragility of nails, hair fall. At examination: pallor of skin and mucous, pulse-100; systolic noise is above all auscultative points. In blood: E- $3,3 \times 10^{12}/l$ , Hb-90 g/l, CI-0,7, L- $9,8 \times 10^9/l$ , hypochromia of erythrocytes, anisocytosis. What reason of origin of systolic noise:

- A. Disturbance of synchronousness of work of valvular apparatus
- B. Defeat of myocardium of hypoxic character
- C. Acceleration of intracardiac blood stream in conditions of decrease of blood viscosity
- D. Acceleration of intracardiac blood stream in conditions of increase blood viscosity
- E. Increase of minute volume of blood

137. The Sick G., 50 years old, complains on weakness, dizziness. At examination: skin and mucous are subicteric, liver +4 sm, dense, painful, spleen +8 sm, dense. In blood test: E- $2,4 \times 10^{12}/l$ , Hb-84 g/l, reticul-25%, L- $7,0 \times 10^9/l$ , e-3%, r/n-6%, s/n-62%, l-22%, m-6%; blood sedimentation-30 mm/h; osmotic resistance of erythrocytes is reduced, maintenance of bilirubin of blood is increased due to indirect, reaction on urobilin is acutely positive, the Coombs` test is positive. What diagnosis is the most credible:

- A. Minkovsky – Shoffar`s disease
- B. Rotor disease
- C. Night hemoglobinuria
- D. Autoimmune hemolytic anemia
- E. Gilbert`s disease

138. The patient D., 63 years old, complains on feeling of overfill in epigastrium, nausea, belch after meal, dyspnea. In blood test: E- $2,0 \times 10^{12}/l$ , Hb-100 g/l, hyperchromia, macrocytosis. At FGDS there are signs of gastritis, at Ph-metry - achilia. What is the most credible reason of development of anemic syndrome:

- A. Production of antibodies to gastromucoprotein
- B. Disturbance of synthesis of hemoglobin
- C. Disturbance of synthesis of erythropoietin
- D. Disturbance of suction of iron
- E. Increased charges of iron

139. The 30 years old woman entered clinic with complaints on nasal and uterine bleeding. In the anamnesis: viral infection 2 weeks ago. At examination: on the skin of trunk and extremities - bruises. In blood test: E- $2,8 \times 10^{12}/l$ , Hb-90 g/l, thrombocyt -  $25,0 \times 10^9/l$ , L- $8,8 \times 10^9/l$ , leukocytar formula without changes. Blood sedimentation-30 mm/h, bleeding time by Dyuke is 13 minutes. The sick must appoint:

- A. Transfusion of thromboconcentrate
- B. Transfusion of packet red cells
- C. Transplantation of bone marrow

- D. Antihemophyl immunoglobulin
- E. Glucocorticoids

140. The 39 years old man marks weakness, palpitation. Objectively: t of body - 38,8°C, skin and white of the eyes are icteric, liver +3 sm, spleen +5 sm. In blood test: E- $3,2 \times 10^{12}/l$ , Hb-90 g/l, CI-0,9, reticul-8%, maximal osmotic resistance of erythrocytes - 0,48, general bilirubin-76 mkmol/l, indirect-63 mkmol/l. What additional research is expedient for clarification of diagnosis:

- A. Activity of glyco-6-phosphat-dehydrogenase
- B. Definition of transaminases
- C. Bilious pigments of urine
- D. The Coombs` test
- E. Markers of viruses of hepatitis

141. At the sick O., 23 years old, who suffers on hemophilia A, extraction of tooth is planned. Introduction of what medical preparation with the purpose of providing hemostasis is necessary to conduct before and after operation?

- A. Cryoprecipitate
- B. Fresh frozen plasma
- C. Aminocapron acid
- D. Vikasol
- E. Ascorbic acid

142. The sick N., 22 years old, reduced feed, vegetarian, appealed to polyclinic with complaints on perversion of smell, taste, angular cheilitis. At examination: expressed bright blue color of white of the eyes. After laboratory research iron deficiency anemia was diagnosed. What clinical syndrome takes advantage at the patient:

- A. Sideropenic
- B. Anemic
- C. Heart failure
- D. Metabolic intoxication
- E. Myelodysplastic

143. The patient I., 52 years old, appealed to district doctor with complaints on weakness, cough with mucous expectoration, weight loss (10 kg during 4 months). Objectively: t of body - 37,5°C, increased supraclavicular and neck lymphatic knots are palpated from both sides, there are harsh breathing and dry rales above lungs, pulse-112, AP-110/70; In blood - lymphocytosis (80%). Choose subsequent tactic of district doctor:

- A. To direct the patient to hematologist
- B. To appoint antiinflammatory therapy
- C. To direct the patient to oncologist
- D. To conduct subsequent ambulatory inspection of patient (R – graphy of organs of pectoral cavity, computed tomography, biochemical blood tests)
- E. To appoint desintoxicative and symptomatic therapy

144. At the patient, suffering on ischemic heart disease, who used aspirin, weakness,

dizziness, more frequent pain in heart appeared. At examination: pale, AP-100/60, heart rate-100, E- $2,6 \times 10^{12}/l$ , Hb-100 g/l, CI-0,8; L- $5,8 \times 10^9/l$ , T- $288 \times 10^9/l$ , iron of blood serum-11,0 mkmol/l. What disease stipulates unstable stenocardia:

- A. Posthemorrhagic anemia
- B. Hypertonic illness
- C. Myocarditis
- D. B<sub>12</sub> deficiency anemia
- E. Hemolytic anemia

145. The sick K., 50 years old, complains on decline of appetite, nightly perspiration, discomfort in stomach, weight loss. Objectively: pallor of skin, hepatosplenomegaly. In blood test there are anemia, leukocytosis with change of leukocytar formula to the left, bazophil – eozinophil association. What result of research confirms the previous diagnosis:

- A. Presence of the Philadelphia chromosome
- B. Botkin – Gumpercht shadows
- C. Increase level of alkaline phosphatase
- D. Decrease of cyancobalamin
- E. Total hyperplasia of bone marrow with megacariocytosis

146. The patient C., 28 years old, complains on undulating fever, perspiration. Objectively: pallor of skin, lymphatic knots are mobile, densely elastic, by the diameter of 1-2 sm, not painful, not connected with skin. In blood: E- $3,0 \times 10^{12}/l$ , Hb-100 g/l, L- $14 \times 10^9/l$ , change of formula to the left, T- $280 \times 10^9/l$ , blood sedimentation-37 mm/h. What method of research it follows to use for confirmation of diagnosis:

- A. Biopsy of lymphatic knot
- B. Sternal puncture
- C. Biopsy of muscles
- D. Sciagraphy of organs of thorax
- E. Lumbar puncture

147. The sick, 40 years old, hospitalized in gynaecological separation with uterine bleeding. Objectively: skin is pale with superficial hemorrhages in the area of trunk and extremities. Blood test: E- $2,6 \cdot 10^{12}/l$ , Hb-80 g/l, L- $4,2 \cdot 10^9/l$ , e-3%, r/n-4%, s/n-58%; l-30%, m-5%, thromb- $50 \times 10^9/l$ . Define the type of hemorrhage at this sick :

- A. Petechia-macular
- B. Hematomal
- C. Mixed
- D. Vasculit-purpural
- E. Angiomatosal

148. The sick T., 28 years old, complains on weakness, dizziness, yellowness of skin. Objectively: yellowness of skin, liver +3 sm, lower pole of spleen is palpated. In blood test: anemia, reticulocytosis, leukocytosis with change of leukocytar formula to promyelocytes. Autoimmune hemolytic anemia is suspected. Choose correct, in relation to the indicated disease, affirmation:

- A. Diagnosis is confirmed by the positive Coombs` test

- B. Growth of level of direct bilirubin is characteristic
- S. Changes of structure of erythrocyte membrane lie in basis of disease
- D. Hypoplasia of red link in trepanobiopate
- E. Increase of level of alkaline phosphatase

149. At the sick O., 19 years old, on the 7 day of treatment concerning acute rheumatic fever, yellowness of skin appeared, level of hemoglobin went down, level of reticulocytes and indirect bilirubin rose. The Coombs` test gave positive result. What medication is more credible entail appearance of medicine-induced hemolytic anemia:

- A. Natrii benzilpenicilini
- B. Diclophenac
- S. Chlorochin
- D. Prednizolon
- E. Ascorbin acid

150. The patient G., 18 years old, complains on periodic appearance of icteric colouring of skin, heavy feeling in the left subcostum. Objectively: lymphatic knots are not increased, spleen +3 sm. Blood test: E- $2,7 \times 10^{12}/l$ , Hb-84 g/l, CI-0,96, reticul-18%, microspherocytosis. Indirect bilirubin-38 mkmol/l. Your diagnosis:

- A. Minkovsky – Shoffar`s anemia
- B. Autoimmune hemolytic anemia
- C. Sideroachrestic anemia
- D. Hypoplastic anemia
- E. B<sub>12</sub> deficiency anemia

151. The sick G., 42 years old, suffers on menorrhagia during three years. There is an exacerbation of chronic pancreatitis as pain in the left subcostum, diarrhea during last two weeks. In blood test there is moderate hypochromic anemia, iron of blood serum – 7,2 mkmol/l. What is necessary for correction of anemia:

- A. Preparations of iron parenteral
- B. Preparations of iron per os
- C. Transfusion of packet red cells
- D. Anabolic hormones
- E. Vitamins of group B

152. The patient A., 62 years old, treats oneself at dermatologist during last two years, concerning itch of skin, which increases after taking a bath. At examination: face of red color, liver is increased - (+4 sm), spleen - (+5 sm). Blood test: E- $7,1 \times 10^{12}/l$ , Hb-210 g/l, L- $12,5 \times 10^9/l$ , change of formula to the left, thromb- $525 \times 10^9/l$ , blood sedimentation 1 mm/h. Hematocrit-72%. Your diagnosis:

- A. Cirrhosis of liver
- B. Acute erythromyelosis
- C. Chronic myeloleukemia
- D. Subleukemoid myelosis
- E. Erythremia

153. The patient K., 66 years old, delivered in hospital in unconscious condition. Last

half a year complains on weakness, stuffiness, dizziness. At examination: skin of lemon colour, tachycardia, systolic noise above all auscultative points, AP-80/60, liver is increased (+3 cm), spleen is palpated. Blood test: E- $1,0 \times 10^{12}/l$ , Hb-45 g/l, blood sedimentation-50 mm/h, glucose of blood-4,2 mmol/l, creatinine of blood-105  $\mu\text{mol}/l$ , bilirubin of blood-32,6  $\mu\text{mol}/l$  due to indirect, negative wave T in V<sub>1</sub>-V<sub>4</sub>. Your previous diagnosis:

- A. Diabetic coma
- B. Hepatic coma
- C. Uremic coma
- D. Anemic coma
- E. Infarct of myocardium, cardiogenic shock.

154. A 62-year-old patient complaining of enlargement of cervical, supraclavicular and axillary lymph nodes, subfebrile temperature for the last 3 months has been admitted to a hospital. In blood: WBCs -  $64 \cdot 10^9/l$ , lymphocytes - 72%. What method of study should be used to specify the diagnosis?

- A. Myelogram
- B. Lymphography
- C. Lymphoscintigraphy
- D. X-rays
- E. Thermography

155. A 42-year-old patient complains of back pain, darkened urine, general weakness, dizziness that occurred after treating a cold with aspirin and ampicillin. Objectively: the patient is pale, with subicteric sclerae. HR - 98 bpm. Liver - +2 cm, spleen - +3 cm. In blood: RBCs -  $2,6 \cdot 10^{12}/l$ , Hb - 60 g/l, CI - 0,9, WBCs -  $9,4 \cdot 10^9/l$ , basophils - 0,5%, eosinophils - 3%, stab neutrophils - 6% segmented neutrophils - 58%, lymphocytes - 25%, monocytes - 7%, ESR - 38 mm/hour, reticulocytes - 24%. Total bilirubin - 38  $\mu\text{mol}/l$ . What complication occurred in the patient?

- A. Agranulocytosis
- B. Paroxysmal nocturnal hemoglobinuria
- C. Acquired hemolytic anemia
- D. Toxic hepatitis
- E. Cholelithiasis

156. A 35-year-old patient has been in the intensive care unit for acute renal failure due to crush for 4 days. Objectively: the patient is inadequate. Breathing rate - 32/min. Over the last 3 hours individual moist rales can be auscultated in lungs. ECG shows high T waves, right ventricular extrasystoles. CVP - 159 mm Hg. In blood: the residual nitrogen - 62  $\mu\text{mol}/l$ , K<sup>+</sup> - 7,1  $\text{mmol}/l$ , Cl<sup>-</sup> - 78  $\mu\text{mol}/l$ , Na<sup>+</sup> - 120  $\text{mmol}/l$ , Ht - 0,32, Hb - 100 g/l, blood creatinine - 0,9  $\text{mmol}/l$ . The most appropriate method of treatment would be:

- A. Plasma sorption
- B. Hemodialysis
- C. Hemosorption
- D. Plasma filtration
- E. Ultrafiltration

157. A 38-year-old patient complains of inertness, subfebrile temperature, enlargement of lymph nodes, nasal haemorrhages, bone pain. Objectively: the patient's skin and mucous membranes are pale, palpation revealed enlarged painless lymph nodes; sternalgia; liver was enlarged by 2 cm, spleen - by 5 cm, painless. In blood: erythrocytes -  $2,7 \cdot 10^{12}/l$ , Hb- 84 g/l, leukocytes -  $58 \cdot 10^9/l$ , eosinophils - 1%, stab neutrophils - 2%, segmented neutrophils - 12%, lymphocytes - 83%, lymphoblasts - 2%, smudge cells; ESR- 57 mm/h. What is the most likely diagnosis?

- A. Chronic myeloleukemia
- B. Acute lymphatic leukemia
- C. Acute myeloleukemia
- D. Lymphogranulomatosis
- E. Chronic lymphatic leukemia

158. A 43-year-old male patient undergoing treatment for peptic ulcer complains of weakness, dizziness, coffee-ground vomiting, melena. After administration of haemostatics the patient's condition has not improved, fresh blood has shown up in the vomit, skin bruises of different sizes have appeared. In blood: thrombocytes -  $50 \cdot 10^9/l$ , Lee-White clotting time - 35 minutes, APTT - 80 seconds. In this case it is most rational to administer the following preparation:

- A. Vikasol
- B. Fresh frozen plasma
- C. Heparin
- D. Fibrinogen
- E. Rheopolyglucinum

159. A 42-year-old female lives in the basement, is unemployed, undernourished. She complains of having general weakness, hair loss, brittle nails for six months, likes to eat chalk. Objectively: the patient is emaciated, pale, has dry skin. Peripheral lymph nodes are not enlarged. Liver is +1,5 cm. In blood: RBCs -  $1,8 \cdot 10^{12}/l$ , Hb- 62 g/l, colour index - 0,78, reticulocytes - 0,5o/oo, ESR- 18 mm/h. Leukogram exhibits no pathology. What is a provisional diagnosis?

- A. Nutritional iron deficiency anaemia
- B. Chronic hepatitis
- C. B12-deficiency anaemia
- D. Acquired haemolytic anaemia
- E. Congenital haemolytic anaemia

160. A 24-year-old patient consulted a doctor about enlarged submandibular lymph nodes. Objectively: submandibular, axillary and inguinal lymph nodes are enlarged. Chest radiograph shows enlarged mediastinal lymph nodes. In blood: RBCs -  $3,4 \cdot 10^{12}/l$ , Hb- 100 g/l, colour index - 0,88, thrombocytes -  $190 \cdot 10^9/l$ , WBCs -  $7,5 \cdot 10^9/l$ , eosinophils - 8%, stab neutrophils - 2%, segmented neutrophils - 67%, lymphocytes - 23%, ESR - 22 mm/h. What study is required to verify the cause of lymphadenopathy?

- A. Open biopsy of lymph nodes
- B. Ultrasound examination of the abdomen
- C. Mediastinal tomography



- D. Puncture biopsy of lymph nodes
- E. Sternal puncture

161. A 27-year-old patient complains of nasal haemorrhages, multiple bruises on the anterior surface of the trunk and extremities, sudden weakness. In blood: Hb- 74 g/l, reticulocytes - 16%, RBCs  $-2,5 \cdot 10^{12}/l$ , platelets -  $30 \cdot 10^9/l$ , ESR- 25 mm/h. What is the most effective measure for the treatment of thrombocytopenia?

- A. Iron preparations
- B. Hemotransfusion
- C. Cytostatics
- D. Splenectomy
- E. Vitamin B12

162. A 60 year-old female has been suffering weakness, dizziness, fatigue over the last year. Recently she has also developed dyspnea, paresthesia. Objectively: skin and mucous membranes are pale and slightly icteric. The tongue is smooth due to the loss of lingual papillae. Liver and spleen are located at the costal margin. Blood count: Hb- 70 g/l, RBCs  $-1,7 \cdot 10^{12}/l$ , colour index - 1,2, macrocytes. Administer the patient a pathogenetically justified drug:

- A. Vitamin B6
- B. Ascorbic acid
- C. Iron preparations
- D. Vitamin B12
- E. Vitamin B1

163. A 22-year-old vegetarian patient with signs of malnutrition consulted a doctor about smell and taste distortion, angular stomatitis. Objectively: expressively blue sclerae. The patient was diagnosed with iron deficiency anemia. What is the dominating clinical syndrome?

- A. Anaemic
- B. Haemologic
- C. Sideropenic
- D. Haemolytic
- E. Myelodysplastic

164. A 63-year-old female complains of general weakness, a feeling of heaviness, compression in the epigastrium, postprandial fullness, nausea, belching after meals. These symptoms have been observed for about 15 years. Objectively: body temperature is 36,4°C, respiratory rate - 20/min, Ps - 88/min, blood pressure - 115/75 mm Hg. Skin and mucous membranes are pale. Blood test results: RBC  $-2,0 \cdot 10^{12}/l$ , Hb -100 g/l. Tests revealed parietalcell antibodies. What is the most likely reason for the development of anemia in this patient?

- A. Disruption of hemoglobin synthesis
- B. Production of antibodies to intrinsic factor
- C. Disruption of erythropoietin synthesis
- D. Impaired iron absorption
- E. Increased loss of iron

165. On the second day of the disease a 22-year-old male patient complains of high-grade fever, headache in the region of forehead and superciliary arches, and during eye movement; aching muscles and joints. Objectively: body temperature is 39°C. Face is hyperemic, sclerae are injected. The mucous membrane of the soft palate and posterior pharyngeal wall is bright hyperemic and has petechial hemorrhages. What changes in the hemogram are typical for this disease?

- A. Leukocytosis
- B. Neutrocytosis
- C. Anemia
- D. Accelerated ESR
- E. Leukopenia

166. A 30-year-old male patient complains of inertness, low-grade fever, bleeding gums, frequent quinsies, aching bones. Objectively: the patient has pale skin and mucous membranes, sternalgia, +2 cm liver, +5 cm painless spleen. Blood test results: RBC- $2,7 \cdot 10^{12}/l$ , Hb- 80 g/l, WBC-  $3 \cdot 10^9/l$ , eosinophils - 4%, basophils - 5%, blasts - 4segmented neutrophils -17%, lymphocytes -29%, myelocytes - 25%, promyelocytes - 12%, monocytes - 2%, platelets -  $80 \cdot 10^9/l$ , ESR -57 mm/h. What test should be performed to verify the diagnosis?

- A. Sternal puncture
- B. Trephine biopsy
- C. Lymph node biopsy
- D. Lumbar puncture
- E. Chest X-ray

167. A 49-year-old male patient consulted a doctor about difficult swallowing, voice hoarseness, weight loss. These symptoms have been gradually progressing for the last 3 months. Objectively: the patient is exhausted, supraclavicular lymph nodes are enlarged. Esophagoscopy revealed no esophageal pathology. Which of the following studies is most appropriate in this case?

- A. Computed tomography of chest and mediastinum
- B. X-ray of lungs
- C. Multiplanar imaging of esophagus
- D. Radioisotope investigation of chest
- E. Ultrasound investigation of mediastinum

168. A 19-year-old male patient complains of intense pain in the left knee joint. Objectively: the left knee joint is enlarged, the overlying skin is hyperemic, the joint is painful on palpation. Blood test results: RBC-  $3,8 \cdot 10^{12}/l$ , Hb-122 g/l, lymphocytes -  $7,4 \cdot 10^9/l$ , platelets -  $183 \cdot 10^9/l$ . ESR- 10 mm/h. Duke bleeding time is 4 minutes, Lee-White clotting time - 24 minutes. A-PTT is 89 sec. Rheumatoid factor is negative. What is the most likely diagnosis?

- A. Werlhof's disease
- B. Rheumatoid arthritis
- C. Thrombocytopathy
- D. Hemophilia, hemarthrosis

## E. Hemorrhagic vasculitis, articular form

169. During an exam, a 22-year-old female student fainted. She grew up in a family with many children, has a history of frequent acute respiratory infections. Objectively: the patient has pale skin and mucous membranes, split-end hair, brittle nails. Blood test results: RBC- $2,7 \cdot 10^{12}/l$ , Hb- 75 g/l, color index - 0,7, WBC- $3,2 \cdot 10^9/l$ , platelets -  $210 \cdot 10^9/l$ , ESR- 30 mm/h. Blood serum iron is 6 mmol/l. What is the most likely diagnosis?

- A. Acute leukemia
- B. B12-deficiency anemia
- C. Iron-deficiency anemia
- D. Vegetative-vascular dystonia
- E. Aplastic anemia

170. A 43-year-old female complains of significant weakness, sore throat, occurrence of multiple unexplained bruises on her skin. These symptoms have been present for a week, the disease is associated with quinsy which she had some time before. Objectively: body temperature - 38,9°C, respiratory rate -24/min, Ps- 110/min, AP- 100/65 mm Hg. The patient has pale skin, petechial rash on the extremities, enlarged lymph nodes. Blood test results: Hb- 80 g/l, RBC-  $2,2 \cdot 10^{12}/l$ ; WBC- $3,5 \cdot 10^9/l$ ; blasts - 52%; eosinophils - 2%; stab neutrophils - 3%; segmented neutrophils - 19%; lymphocytes - 13%; monocytes - 1%; platelets -  $35 \cdot 10^9/l$ . ESR - 47 mm/h. What test is required to specify the diagnosis?

- A. Protein electrophoresis
- B. Immunophenotyping
- C. Lymph node biopsy
- D. Determination of anti-platelet antibody titer
- E. Cytogenetic study

171. A patient complains of fatigue, lack of appetite, pain and burning sensation in the tongue, numbness of the distal limbs, diarrhea. Objectively: pale skin with lemon-yellow tint, face puffiness, brown pigmentation in the form of a "butterfly", bright red areas on the tongue. The liver is 3 cm below the costal margin, soft. Blood count: RBCs -  $1,5 \cdot 10^{12}/l$ , colour index -1,2, WBCs -  $3,8 \cdot 10^9/l$ , thrombocytes -  $180 \cdot 10^9/l$ , eosinophiles - 0%, stab neutrophiles - 1%, segmented neutrophiles - 58%, lymphocytes -38% monocytes - 3%, RBC macrocytosis. ESR - 28 mm/h. What diagnosis are these presentations typical for?

- A. Iron deficiency anemia
- B. Aplastic anemia
- C. Acute erythromyelosis
- D. B12-deficiency anemia
- E. Chronic adrenal failure

172. A 25-year-old female patient complains of marked weakness, sleepiness, blackouts, dizziness, taste disorder. The patient has a history of menorrhagia. Objectively: the patient has marked weakness, pale skin, cracks in the corners of her mouth, peeling nails, systolic apical murmur. Blood test results: RBC -  $3,4 \cdot 10^{12}/l$ , Hb- 70 g/l, colour index - 0,75, platelets -  $140 \cdot 10^9/l$ , WBC-  $6,2 \cdot 10^9/l$ . What is the most likely diagnosis?

- A. Acute leukemia

- B. Acute posthemorrhagic anemia
- C. B12-deficiency anemia
- D. Werlhof's disease
- E. Chronic posthemorrhagic anemia

173. Against the background of angina a patient has developed pain in tubular bones. Examination revealed generalized enlargement of lymph nodes, hepatolienal syndrome, sternalgia. In blood: RBCs -  $3,6 \cdot 10^{12}/l$ , Hb-87 g/l, thrombocytes -  $45 \cdot 10^9/l$ , WBCs -  $13 \cdot 10^9/l$ , blasts - 87%, stab neutrophils -1%, segmented neutrophils - 7%, lymphocytes -5%, ESR - 55 mm/h. What is the most likely diagnosis?

- A. Acute leukemia
- B. Erythremia
- C. Chronic lymphocytic leukemia
- D. Chronic myeloid leukemia
- E. Multiple myeloma

174. A 34-year-old patient complains of profuse sweating at night, skin itching, weight loss (9 kg within the last 3 months). Examination revealed malnutrition, skin pallor. Palpation of neck and inguinal areas revealed dense elastic lymph nodes of about 1 cm in diameter, nonmobile, non-adhering to skin. What is the most probable diagnosis?

- A. Lymphogranulomatosis
- B. Chronic lymphadenitis
- C. Lymphosarcoma
- D. Burkitt's lymphoma
- E. Cancer metastases

175. A 20-year-old patient was delivered to a surgical unit complaining of an incised wound on his right forearm that has been bleeding for 1,5 days. Suffers from general weakness, vertigo, cold sweat, oploptentes. Skin and visible mucous membranes are pale. Heart rate is 110/min, BP is 100/70 mm Hg. Blood test: Hb is 100 g/l, erythrocytes  $2,5 \cdot 10^{12}/l$ . What is the cause for the patient's general condition?

- A. Posthemorrhagic anemia
- B. Aplastic anemia
- C. Wound infection
- D. Concomitant disease
- E. Acute thrombophlebitis

176. A 22-year-old woman on a reduced diet, vegetarian, attended a hospital with complaints of distorted smell and taste perception and lesions in the angles of her mouth. Objectively: sclera is distinctly blue. Diagnosis: iron-deficiency anemia. What clinical syndrome is expressed primarily?

- A. Anemic
- B. Hemorrhagic
- C. Hemolytic
- D. Sideropenic
- E. Myelodysplastic

177. A woman complains of muscle weakness and general fatigue, dyspnea, vertigo, brittleness of her hair and nails, an urge to eat chalk. Anamnesis states uterine fibroid. Common blood analysis: erythrocytes -  $2,8 \cdot 10^{12}/l$ , Hb- 80 g/l, color index - 0,78, anisocytosis, poikilocytosis, serum iron - 10  $\mu\text{mol}/l$ . What diagnosis is most likely?

- A. Aplastic anemia
- B. Hypoplastic anemia
- C. Iron-deficiency anemia
- D. B12-deficient anemia
- E. Autoimmune hemolytic anemia

178. A 24-year-old patient visited a doctor complaining of enlargement of his submaxillary lymph nodes. Objectively: submaxillary, axillary and inguinal lymph nodes are enlarged. Chest X-ray shows: enlarged lymph nodes of mediastinum. Blood test: erythrocytes -  $3,4 \cdot 10^{12}/l$ , Hb- 100 g/l, blood colour index - 0,88, platelets -  $190 \cdot 10^9/l$ , leucocytes -  $7,5 \cdot 10^9/l$ , eosinophils - 8%, band neutrophils - 2%, segmented neutrophils - 67%, lymphocytes - 23%, ESR- 22 mm/hour. What test must be prescribed to verify the cause of lymphadenopathy?

- A. Puncture biopsy of lymph nodes
- B. Open biopsy of lymph nodes
- C. Ultrasonography of abdominal cavity
- D. Mediastinum tomography
- E. Sternal puncture

179. A 56-year-old patient complains of pain in the epigastrium after eating, eructation, loss of appetite, slight loss of weight, fatigability. The patient smokes; no excessive alcohol consumption. Objectively: pale mucosa, BP-110/70 mm Hg. The tongue is 'lacquered'. The abdomen is soft, sensitive in the epigastric area. Blood test: erythrocytes -  $3,0 \cdot 10^{12}/l$ , Hb- 110 g/l, color index - 1,1; macrocytosis; leukocytes -  $5,5 \cdot 10^9/l$ , ESR- 13 mm/hour. On fibrogastroduodenoscopy: atrophy of fundic mucosa. What pathogenesis does this disorder have?

- A. H.pylori persistence
- B. Alimentary factor
- C. Chemical factor
- D. Producing antibodies to parietal cells
- E. Gastropathic effect

180. A 29-year-old female patient complains of dyspnea, heaviness and chest pain on the right, body temperature rise up to  $37,2^{\circ}\text{C}$ . The disease is associated with a chest trauma received 4 days ago. Objectively: skin is pale and moist. Ps- 90/min., regular. Palpation reveals a dull sound on the right, auscultation reveals significantly weakened vesicular breathing. In blood: RbCs-  $2,8 \cdot 10^{12}/l$ , colour index - 0,9, Hb- 100 g/l, WBCs-  $8,0 \cdot 10^9/l$ , ESR- 17 mm/hour. What results of diagnostic puncture of the pleural cavity can be expected?

- A. Chylous liquid
- B. Exudate
- C. Transudate
- D. Purulent punctate

## E. Haemorrhagic punctate

181. A 58-year-old woman complains of spontaneous bruises, weakness, bleeding gums, dizziness. Objectively: the mucous membranes and skin are pale with numerous hemorrhages of various time of origin. Lymph nodes are not enlarged. Heart rate - 100/min., BP- 110/70 mm Hg. There are no changes of internal organs. Blood test results: RBC- $3,0 \cdot 10^{12}/l$ , Hb- 92 g/l, colour index - 0,9, anisocytosis, poikilocytosis, WBC -  $10 \cdot 10^9/l$ , eosinophils - 2%, stab neutrophils - 12%, segmented neutrophils - 68%, lymphocytes - 11%, monocytes - 7%, ESR- 12 mm/hour. What index should be determined additionally by a laboratory to make a diagnosis?

- A. Platelets
- B. Reticulocytes
- C. Clotting time
- D. Osmotic resistance of erythrocytes
- E. Fibrinogen

182. A 27-year-old woman complains of bleeding gums, nasal hemorrhages, multiple hematomas on the skin of her limbs and on the front of her torso, extreme general fatigue. Blood test: Hb- 64 g/l, erythrocytes -  $2,5 \cdot 10^{12}/l$ , reticulocytes - 16%, platelets -  $30 \cdot 10^9/l$ , ESR- 22 mm/hour. What approach would be most efficient for treatment of this pathology?

- A. Splenectomy
- B. Dicynone (Etamsylate)
- C. Platelet concentrate transfusion
- D. Cytostatics
- E. Group B vitamins

183. A 58-year-old woman undergoing chemotherapy for her oncologic disorder has developed sore throat. Examination revealed necrotic areas on the mucosa of the pharynx and tonsils. Many of her teeth are afflicted with caries. In blood: neutrophilic granulocytes are practically absent against the background of leukopenia. Leukocytes are represented mainly by lymphocytes and monocytes. What disease can be suspected in the given case?

- A. Agranulocyte tonsillitis
- B. Lacunar tonsillitis
- C. Pseudomembranous (Vincent's) tonsillitis
- D. Syphilitic tonsillitis
- E. Diphtheria

184. A 60-year-old woman developed weakness, vertigo, rapid fatigability during the last year. Recently there have been dyspnea and paresthesia observed. Objectively: skin and mucous membranes are pale and icteric. Lingual papillae are smoothed out. Liver and spleen are situated at the edge of costal arch. Blood test: Hb- 70 g/l, erythrocytes -  $7 \cdot 10^{12}/l$ , blood color index - 1,2, macrocytes. What drug can be prescribed on pathogenetic grounds?

- A. Vitamin B6
- B. Ascorbic acid

- C. Vitamin B12
- D. Iron preparations
- E. Vitamin B1

185. A 45-year-old man has been suffering from duodenal ulcer disease for 5 years. He complains of weakness, dizziness, dryness of the skin. Objectively: the skin and visible mucosa are pale, chapped lips; heart rate is 100/min., BP- 100/70 mm Hg, systolic murmur at all points on heart auscultation. All other internal organs are unchanged. Fecal occult blood test is positive. Blood test: erythrocytes -  $3,1 \cdot 10^{12}/l$ , Hb- 88 g/l, color index - 0,7, leukocytes -  $4,6 \cdot 10^9/l$ , platelets -  $350 \cdot 10^9/l$ , ESR- 21 mm/hour, anisocytosis, poikilocythemia, serum iron - 9,5  $\mu\text{mol}/l$ . What treatment tactics would you choose?

- A. Concentrated red cells transfusion
- B. Intramuscular introduction of 500 mkg of cyanocobalamin
- C. Corticosteroids, cytostatics
- D. Iron preparations, balanced diet
- E. Ascorbic acid, calcium chloride

186. A 32-year-old welder complains of weakness and fever. His illness initially presented as tonsillitis one month earlier. On examination: body temperature - 38,9°C, RR-24/min., HR- 100/min., BP- 100/70 mm Hg, hemorrhages on the legs, enlargement of the lymph nodes. Complete blood count: Hb- 70 g/l, RBC-  $2,2 \cdot 10^{12}/l$ , WBC-  $3,0 \cdot 10^9/l$  with 32% of blasts, 1% of eosinophils, 3% of band neutrophils, 36% of segments, 20% of lymphocytes, and 8% of monocytes, ESR- 47 mm/hour. What is the cause of anemia?

- A. Chronic lympholeukemia
- B. Aplastic anemia
- C. B12-deficient anemia
- D. Acute leukemia
- E. Chronic hemolytic anemia

187. A 37-year-old woman complains of headaches, nausea, vomiting, spasms. The onset of the disease occurred the day before due to her overexposure to cold. Objectively: fever up to 40°C; somnolence; rigid neck; Kernig's symptom is positive on the both sides; general hyperesthesia. Blood test: leucocytosis, increased ESR. Cerebrospinal fluid is turbid, yellow- tinted. What changes of the cerebrospinal fluid are most likely?

- A. Lymphocytic pleocytosis
- B. Blood in the cerebrospinal fluid
- C. Xanthochromia in the cerebrospinal fluid
- D. Neutrophilic pleocytosis
- E. Albuminocytological dissociation

188. A 65-year-old man was diagnosed with B12-deficient anemia and the treatment was prescribed. A week later control blood test was performed. What would be the early indicator of the therapy effectiveness?

- A. Increased number of reticulocytes
- B. Increased hemoglobin level

- C. Megaloblastic hematopoiesis
- D. Normoblastic hematopoiesis
- E. Increased erythrocyte number

189. Examination of a 43-year-old man objectively revealed pallor of skin and mucous membranes, loss of tongue papillae, transverse striation of fingernails, cracks in the mouth corners, tachycardia. Blood test results: Hb- 90 g/l, anisocytosis, poikilocytosis. The most likely causative factor of this condition is the inadequate intake of:

- A. Zinc
- B. Magnesium
- C. Selene
- D. Iron
- E. Copper

190. A 60-year-old woman has been suffering from weakness, dizziness, and fatigue over the last year. Recently she has also developed dyspnea, paresthesia. Objectively: the skin and mucous membranes are pale and slightly icteric. The tongue is smooth due to the loss of lingual papillae. Liver and spleen are located at the costal margin. Blood count: Hb- 70 g/l, RBC- $1,710^{12}/l$ , color index -1,2, macrocytes. Administer the patient a pathogenetically justified drug:

- A. Vitamin B12
- B. Vitamin B6
- C. Ascorbic acid
- D. Iron preparations
- E. Vitamin B1

191. A 48-year-old man complains of fatigue, excessive sweating, severe skin itching, undulant fever, enlarged cervical and supraclavicular lymph nodes. Objectively: paleness of skin and mucosa, cervical lymph nodes are mobile, dense, elastic, walnut-sized, painless, not attached to the skin. Complete blood count: erythrocytes -  $3,0 \cdot 10^{12}/l$ , Hb-100 g/l, leukocytes -  $14 \cdot 10^9/l$ , eosinophils -6%, basophils - 3%, band neutrophils -11%, segmented neutrophils - 69%, lymphocytes -7, monocytes - 4%, platelets -  $280 \cdot 10^9/l$ , ESR-37 mm/hour. What method should be applied to verify the diagnosis?

- A. Sternal puncture
- B. Muscle biopsy
- C. Chest X-ray
- D. Lymph node biopsy
- E. Lumbar puncture

192. A 22-year-old man suddenly developed extreme weakness, nausea, vomiting with traces of blood. The patient is known to suffer from peptic ulcer disease of duodenum and hemophilia A. Objectively: heart rate -102/min., BP-100/60 mm Hg. Complete blood count: erythrocytes -  $3,2 \cdot 10^{12}/l$ , Hb- 98 g/l, color index - 0,92, leukocytes -  $7,4 \cdot 10^9/l$ , platelets -  $240 \cdot 10^9/l$ , ESR-11 mm/hour. What measure would most effectively decrease hemorrhaging in this case?

- A. Platelet concentrate transfusion



- B. Cryoprecipitate
- C. Aminocaproic acid
- D. Native plasma
- E. Direct transfusion of donor blood

193. A 25-year-old patient has been admitted to the hospital with the following problems: weakness, sweating, itching, weight loss, enlarged submandibular, cervical, axillary, inguinal lymph nodes. Objectively: hepatomegaly. Lymph node biopsy revealed giant Berezovsky-Reed- Sternberg cells, polymorphocellular granuloma composed of lymphocytes, reticular cells, neutrophils, eosinophils, fibrous tissue, and plasma cells. What is the most likely diagnosis?

- A. Lymph node tuberculosis
- B. Lymphoreticulosarcoma
- C. Cancer metastases to the lymph nodes
- D. Macofollicular reticulosis
- E. Lymphogranulomatosis (Hodgkin's lymphoma)

194. A 25-year-old woman complains of fatigue, dizziness, hemorrhagic rashes on the skin. She has been presenting with these signs for a month. Blood test: erythrocytes -  $1.0 \times 10^{12}/L$ , Hb- 37 g/L, colour index - 1.1, leukocytes -  $1.2 \times 10^9/L$ , platelets -  $42 \times 10^9/L$ . What analysis would be the most advisable for diagnosis- making in this case?

- A. Splenic biopsy
- B. Liver biopsy
- C. Coagulation studies
- D. Sternal puncture (bone marrow biopsy)
- E. US of the gastrointestinal tract

195. A 35-year-old man complains of rapidly increasing fatigue, palpitations, "visual snow", dizziness. He has a history of peptic ulcer of the stomach. Objectively the skin is pale. Vesicular respiration is observed in the lungs. Systolic murmur is detected over the cardiac apex, heart rate is 100/min., BP is 100/70 mm Hg. The epigastrium is slightly tender on palpation. Blood test: erythrocytes -  $3.2 \times 10^{12}/L$ , Hb- 100 g/L, color index - 0.94. What type of anemia is the most likely present in this case?

- A. Sideroblastic anemia
- B. Iron-deficiency anemia
- C. Posthemorrhagic anemia
- D. Hemolytic anemia
- E. Hypoplastic anemia

196. A 57-year-old woman complains of weakness, dyspnea, loss of appetite, and liquid feces. She has been suffering from this condition for 2 years. Objectively she presents with pale skin, subicteric sclera, and bright-red fissured tongue. Lymph nodes are not enlarged. Pulse - 100/min. BP- 105/70 mm Hg. Liver +3 cm, the spleen cannot be palpated. Blood test: erythrocytes -  $1.2 \times 10^{12}/L$ , Hb- 56 g/L, color index - 1.4, macrocytes, leukocytes  $2, 5 \times 10^9/L$ , eosinophils - 1%, juvenile - 1%, metamyelocytes - 1%, band neutrophils - 8%, segmented neutrophils - 47%, lymphocytes - 38%, monocytes - 4%, reticulocytes - 0.1%, platelets -  $100 \times 10^9/L$ , ESR- 30 mm/hour, indirect bilirubin - 26

mmol/L. What changes can be expected in the bone marrow puncture material?

- A. Presence of blast cells
- B. Prevalence of lymphoid tissue
- C. Prevalence of megaloblasts
- D. Increased number of sideroblasts
- E. Erythroid hyperplasia

197. A 28-year-old woman complains of skin hemorrhages after minor traumas and spontaneous appearance of hemorrhages on the front of her torso and extremities. On examination: the skin is variegated (old and new hemorrhages), bleeding gums. Blood platelets -  $20 \times 10^9/L$ ; in the bone marrow there is increased number of megakaryocytes and no platelet production. Treatment with steroid hormones was effective. What is the likely diagnosis?

- A. Hemophilia
- B. Rendu-Osler-Weber disease (Hereditary hemorrhagic telangiectasia)
- C. Disseminated intravascular coagulation
- D. Idiopathic thrombocytopenic purpura
- E. Acute vascular purpura

198. A 60-year-old woman started feeling weakness, vertigo, rapid fatigability during the last year. Recently she has developed dyspnea and paresthesia observed. Objectively: skin and mucous membranes are pale and icteric. Lingual papillae are smoothed out. Liver and spleen are at the edge of costal arch. Blood test: Hb-  $70 \text{ g/L}$ , erythrocytes -  $1.7 \times 10^{12}/L$ , blood color index - 1.2, macrocytes. What drug can be prescribed on pathogenetic grounds?

- A. Vitamin B12
- B. Vitamin B6
- C. Ascorbic acid
- D. Iron preparations
- E. Vitamin B1

199. A 38-year-old patient has been delivered by an ambulance to a surgical department with complaints of general weakness, indisposition, black stool. On examination the patient is pale, there are dotted hemorrhages on the skin of his torso and extremities. On digital investigation there are black feces on the glove. Blood test: Hb-  $108 \text{ g/L}$ , thrombocytopenia. Anamnesis states that similar condition was observed 1 year ago. Make the diagnosis:

- A. Thrombocytopenic purpura
- B. Hemophilia
- C. Bleeding from an ulcer
- D. Rectal tumor
- E. Nonspecific ulcerative colitis

200. A 35-year-old man complains of persisting enlargement of his peripheral lymph nodes that cause him no discomfort. The case history states that the first lymph nodes to enlarge were cervical, supraclavicular, and axillary; new groups of lymph nodes emerged. Objectively the lymph nodes are soft and elastic on palpation, enlarged,

painless, not fixed to the surrounding tissue. What examination method would be the most informative for early diagnostics of this disease?

- A. Magnetic resonance tomography
- B. Radioisotope scanning of the skeleton
- C. Ultrasound
- D. Needle biopsy
- E. X-ray

**Standards of true answers**

№ of task	True answer	№ of task	True answer	№ of task	True answer	№ of task	True answer
1	A	51	E	101	B	151	A
2	E	52	C	102	B	152	E
3	E	53	A	103	E	153	D
4	C	54	C	104	C	154	A
5	D	55	E	105	C	155	C
6	D	56	E	106	D	156	B
7	C	57	C	107	B	157	E
8	C	58	A	108	E	158	B
9	B	59	B	109	D	159	A
10	D	60	A	110	A	160	A
11	B	61	D	111	C	161	D
12	A	62	C	112	D	162	D
13	D	63	B	113	C	163	C
14	A	64	A	114	B	164	B
15	B	65	A	115	A	165	E
16	A	66	C	116	E	166	A
17	A	67	B	117	A	167	A
18	C	68	C	118	C	168	D
19	B	69	A	119	D	169	C
20	B	70	C	120	C	170	B
21	A	71	B	121	E	171	D
22	B	72	E	122	C	172	E
23	A	73	A	123	C	173	A
24	A	74	C	124	E	174	A
25	D	75	D	125	E	175	A
26	B	76	B	126	D	176	D
27	C	77	A	127	E	177	C
28	A	78	D	128	E	178	B
29	D	79	D	129	A	179	D
30	A	80	E	130	E	180	E
31	E	81	B	131	C	181	A
32	C	82	D	132	A	182	A
33	D	83	A	133	B	183	A
34	D	84	C	134	B	184	C
35	C	85	D	135	E	185	D
36	D	86	E	136	C	186	D
37	C	87	A	137	D	187	D
38	B	88	E	138	A	188	A
39	A	89	E	139	E	189	D
40	B	90	E	140	D	190	A
41	D	91	C	141	A	191	D
42	B	92	E	142	A	192	B
43	C	93	A	143	A	193	E
44	B	94	B	144	A	194	D
45	B	95	A	145	A	195	C
46	B	96	D	146	A	196	C
47	C	97	E	147	C	197	D
48	C	98	B	148	A	198	A
49	C	99	B	149	C	199	A
50	D	100	A	150	A	200	D

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