Exam questions on clinical laboratory diagnostics.

1. Complete blood count — investigation of peripheral blood smear: rules of blood draw, sequence of operations in blood smear preparing. Count of WBC differential (leukogram): technique and method of WBC differential counting, notion about Meandre's line. WBC differential in norm and pathology (the left and the right shift of leukogram).
2. Complete blood count — investigation of hemoglobin: blood draw, technique of definition. Hemoglobin values (in Sali's units and in g%) in norm and pathology.
3. Complete blood count — investigation of red blood corpuscles (RBCs): technique of blood draw for RBCs count, sequence of operations on using Goryaev's chamber, order of RBCs count (formula). RBCs values in norm and pathology.
4. Complete blood count — investigation of colour index. Colour index in norm and pathology.
5. Complete blood count — investigation of erythrocytes sedimentation rate (ESR): technique of ESR determination. ESR values in norm and pathology. Diagnostic meaning of ESR changes.
6. Complete blood count — investigation of white blood cells (WBCs): technique of blood draw for WBCs count. Sequence of operations on using Goryaev's chamber, order of WBC count (formula). WBCs values in norm and pathology.
7. Complete blood count — investigation of peripheral blood smear for RBCs morphology study: rules of blood draw, sequence of operations in blood smear preparing. RBCs morphology in norm and pathology; notion about Price+Jones' (?)curve.
8. Complete blood count — reticulocytes investigation: peculiarities of blood draw for reticulocytes count. Notion about supravital blood smear staining. Technique of reticulocytes count in blood smear. Reticulocytes value in norm and pathology, clinical meaning of reticulocytes count.
9. Complete blood count — platelets investigation: technique of blood draw for platelet count. Design procedure of platelets count. Platelets values in norm and pathology.
10. Changes of peripheral blood in acute posthemorrhagic anemia (changes of blood picture according 3 phases of compensation).
11. Changes of peripheral blood in iron-deficient anemias.
12. Changes of peripheral blood in anemias, bound with DNA and RNA synthesis disorders (vitamin B_{12}-, folic acid-deficient anemias).
13. Changes of peripheral blood in leucosis. Notion about leukemic and aleukemic forms of leucosis. Acute leukemias: myeloblast and lymphoblast forms.
14. Changes of peripheral blood in chronic myeloleukemia.
15. Changes of peripheral blood in chronic lympholeukemia.
16. Changes of peripheral blood in inflammatory diseases.
17. Urinalysis. Characteristics of diurnal diuresis in the norm and pathology. Zimnitsky test: technique of urine collection, clinical interpretation of test results.

18. Determination of urine physical properties: colour, clarity, odor, pH, specific gravity (relative density). Clinical interpretation of abnormalities.
19. Urine chemical investigation: determination of urine protein. Designate and describe 3 qualitative protein tests. Clinical sense of protein detection.
20. Quantitative determination of urine protein after Roberts+Stolnikov+ Brandberg test (sequence of operations). Clinical meaning.
21. Urine chemical investigation: determination of urine glucose (qualitative tests, quantitation of glucose value). Clinical sense.
22. Urine chemical investigation: determination of urine ketones. Clinical sense.
23. Urine chemical investigation: determination of urine bilirubin and urine urobilinogen. Clinical sense.
24. Urinalysis: Microscopic exam for centrifuged urine sediment (technique of carrying out). Urine sediment characteristics in healthy human being.
25. Quantitation of urine sediment (Addice+Kakovsky and Nechiporenko tests). Procedure, numeral values in the norm and pathology.
26. Sputum investigation: determination of physical properties. Clinical meaning.
27. Sputum microscopis exam. Clinical meaning.
28. Investigation of pleural fluid. Distinction of exudates from transsudates. Rivalt's test (procedure).
29. Investigation of gastric secretory function. Technique of gastric intubation. Peroral and parenteral stimulators. Types of gastric secretory function abnormalities (hyperchlorhydria, hypochlorhydria, achlorhydria). Clinical meaning.
30. Gastric content appearance. Clinical meaning of revealed changes.
31. Chemical investigation of gastric juice. Clinical meaning of revealed changes.
32. Microscopic exam of gastric content. Diagnostic meaning of revealed changes.
33. Examination of duodenal content. Technique of duodenal intubation. 3-phased technique of duodenal intubation: description of A, B and C portions in the norm and pathology.
34. Examination of duodenal content. Technique of duodenal intubation. Multimomental fractional method. Description of 5 bile excretion phases (duration, excretoru bile amount) in the norm and pathology.
35. Examination of duodenal content: microscopic exam of bile. Clinical meaning of revealed changes.
36. Chemical examination of gastric juice: determination of lactic acid (Uffelmann's test) — procedure. Clinical meaning of revealed changes lactic acid.
37. Examination of duodenal content. Examination for protozoa and helmints. Bacteriological examination of bile. Bile biochemical exam. Clinical meaning.
38. Macroscopic stool analysis, clinical meaning.
39. Microscopic stool analysis. Clinical meaning.
40. Chemical stool analysis. Gregersene's test [fecal occult blood test (FOBT)]: preparation of patient, technique, biochemical essence of test, interpretation). Clinical meaning.