## **OUESTIONS FOR INTERMEDIATE TEST**

## in the discipline "Pathological anatomy" for the specialties "General Medicine", "Dentistry".

- 1. General characteristics of dystrophies (degenerations). Definition, causes, morphogenetic mechanisms and principles of classification.
- 2. Parenchymal protein dystrophies. Causes, pathogenesis, types, morphological characteristics.
- 3. Parenchymal fatty degeneration of organs (myocardium, liver, kidneys). Causes, pathogenesis, morphological characteristics, outcomes. Histochemical methods for detection of lipids.
- 4. Stromal-vascular fatty degenerations. General obesity (obesity) and lipomatosis. Classification, causes, mechanisms of development, morphology, significance for the organism.
- 5. Mucoid and fibrinoid swelling. Causes, mechanisms of development, morphological characteristics, methods of histochemical detection.
- 6. Hyalinosis: causes, mechanisms of development, classification, morphological characteristics, outcomes and functional significance. Types of vascular hyaline.
- 7. Appearance and microscopic characteristics of organs (kidneys, liver, spleen) in amyloidosis. Classification of amyloidosis. Methods of macro- and microscopic detection of amyloid.
- 8. Violation of the exchange of hemoglobinogenic pigments. Hemosiderosis and hemochromatosis. Histochemical detection of hemosiderin. Hemomelanosis. Porfiria.
- 9. Violation of bilirubin metabolism. Jaundice, its types and their characteristics. Hereditary hyperbilirubinemia.
- 10. Violation of calcium metabolism. The metabolism of calcium in the body. Calcifications (calcifications): causes, pathogenesis, types, morphological characteristics.
- 11. Formation of stones. Causes and mechanisms of stone formation. Types of stones by composition. Complications associated with the presence of stones in the body.
- 12. Necrosis. Definition, mechanisms of development, stages of the necrotic process. Microscopic signs of necrosis. Reaction to necrosis of surrounding tissues. Classification of necrosis depending on the cause.
- 13. Clinical and morphological forms of necrosis and their brief characteristics. Outcomes and significance of necrosis.
- 14. Arterial plethora (hyperemia), general and local. Definition, causes, types, morphological characteristics.
- 15. General acute venous plethora. Definition, causes, pathogenesis, morphological changes in organs, outcomes.
- 16. General chronic venous plethora. Causes. Morphological changes in organs (liver, lungs, kidneys, spleen, skin). Morphogenesis of congestive sclerosis.
- 17. Anemia (ischemia). Definition, causes, types, morphological characteristics, outcomes.
- 18. Bleeding and hemorrhage. Definition, reasons. Classification of bleeding. Types of hemorrhages. Morphological characteristics and outcomes.
- 19. Heart attack. Definition, causes, classification by form and type, complications and outcomes. Morphological characteristics of infarctions of individual organs (brain, spleen, myocardium, kidneys, lungs).
- 20. Gangrene. Definition, varieties and their characteristics. Morphological characteristics of foot gangrene and intestinal gangrene.
- 21. Thrombosis. Definition. Local and general factors of thrombosis. Thrombus formation mechanism. Stages of thrombus morphogenesis. Diseases and conditions associated with an increased risk of thrombosis.
- 22. Thrombus. Its types, morphological characteristics. Difference of blood clots from post-mortem clots. Outcomes of thrombosis and significance for the organism.
- 23. Embolism. Definition, causes, types, morphological characteristics, outcomes.

- 24. Fat, air and gas embolism. Causes of development, pathogenesis, morphological manifestations. Pathological anatomical diagnostics. Causes of death.
- 25. Shock. Causes and mechanisms of development. shock types. stages of shock. Morphological changes in organs during shock.
- 26. Edema. Causes, mechanisms of development, types, outcomes. Morphological characteristics of pulmonary edema and cerebral edema-swelling. The concept of adult respiratory distress syndrome.
- 27. Inflammation. Definition, essence and biological significance of inflammation. Etiology of inflammation. phases of the inflammatory response. Clinical and morphological signs of inflammation. Principles of classification.
- 28. Inflammation: alteration phase. Cellular and humoral mediators of the inflammatory response and their main effects.
- 29. Inflammation: exudation phase, its stages. The concept of exudate and transudate.
- 30. Fibrinous inflammation. Localization and reasons. Types of fibrinous inflammation, their morphological characteristics, outcomes and significance for the body.
- 31. Purulent inflammation. Causes. Varieties of purulent inflammation, their morphological characteristics, outcomes, significance for the body.
- 32. Serous, hemorrhagic, putrefactive and catarrhal inflammation. Causes. Morphological characteristic.
- 33. Granulomatous inflammation. Pathogenesis, classification and significance of granulomas. The structure of specific granulomas.
- 34. Adaptation and compensation. Definition, essence, bases of classification. Phases of the compensatory process.
- 35. Regeneration. Definition, levels of restoration of structural elements (forms of regeneration), mechanisms of regulation, types of regeneration and their characteristics. Regeneration of individual cells and tissues.
- 36. Hypertrophy and hyperplasia. Definition, classification, morphological characteristics, significance for the organism.
- 37. General and local atrophy. Classification, morphology, significance for the organism.
- 38. Metaplasia and dysplasia. Definitions. Types of metaplasia. Signs and degrees of dysplasia. Significance for the body.
- 39. Sclerosis and cirrhosis. Concept, causes, mechanism of development, morphological characteristics.
- 40. Tumor. Definition. Carcinogens, their types. Modern theories of carcinogenesis. The concept of cellular oncogenes and anti-oncogenes. Oncogene activation mechanisms.
- 41. The structure of tumors. Types of atypism in the tumor and their characteristics.
- 42. Types of tumor growth. Invasion. The concept of relapse. Secondary changes in tumors.
- 43. Metastasis of tumors: definition, ways of metastasis, stages of the metastatic cascade.
- 44. Comparative characteristics of benign and malignant tumors. Local and general manifestations of tumors. The concept of paraneoplastic syndrome.
- 45. Epithelial tumors without specific localization, benign and malignant. General characteristics, types, morphology.
- 46. Mesenchymal tumors, benign and malignant. General characteristics, types, morphology.
- 47. Tumors of melanin-forming tissue. Sources of occurrence and localization. Morphological characteristic.