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**GENERAL PATHOLOGY EXAMINATION SYLLABUS**

1. Introduction to pathology - subject, objectives and methods in pathology.

2. Etiology and pathogenesis. Types of damaging factors. General pathological processes.

3. Reversible cell injury - cellular edema, initiation mechanisms.

4. Necrosis - nature, types, exit.

5. Death – clinical and biological; signs of death.

6. Infarction – pathogenesis and morphology; types.

7. Apoptosis - nature, causes and mechanisms.

8. Cellular accumulations - abnormal intracellular accumulations of products, disproteinoses.

9. Lipid metabolism disorders - lipid degeneration, lipomatosis, lipoidosis.

10. Cumulative diseases – thesaurismoses.

11. Intercellular matrix disorders - connective tissue degeneration and fibrinoid deposition.

12. Elastin and collagen content and synthesis disorders.

13. Hyalinosis - causes, mechanisms for development. Types of hyalin.

14. Amyloidosis - causes, mechanisms for development, classification.

15. Calcium metabolism disorders - types of calcification. Concrement formation.

16. Mineral metabolism disorders - potassium, copper etc. Urate deposition.

17. Pigment metabolism disorders – hemosiderosis, hemochromatosis.

18. Pigment metabolism disorders - bilirubin. Types of jaundice.

19. Pigment metabolism disorders - melanin, exogenous pigments.

20. General principles of adaptations. Hypertrophy and hyperplasia.

21. Adaptational processes - atrophy, metaplasia, hystologic accommodation.

22. Regeneration (repair) – general characteristics. Disorders in the process of regeneration.

23. Regeneration (repair) of various tissues and organs.

24. Fibrosis - causes and mechanisms for development.

25. Circulatory disorders - anemia, hyperemia, stasis, hypostasis.

26. Hemorrhages - causes, types, mechanisms for development. Exit.

27. Tissue fluids balance disorders – dehydration. Edema – causes, types, mechanisms for development.

28. Hemostasis and thrombosis - pathogenesis, morphological characteristics, exit.

29. Embolism - types and morphological classcharacteristics.

30. Disseminated intravascular coagulation - subject, pathogenesis, morphological

classcharacteristics.

31. Shock - types and morphological classcharacteristics.

32. Inflammation - general principles, pathogenesis and morphogenesis. Mediators of

inflammation.

33. Morphological classcharacteristics of the acute inflammation. Types.

34. Chronic productive inflammation. Diffuse and granulomatous inflammation.

35. Immunopathology - morphological classcharacteristics of immune reactions.

36. Hypersensitivity reactions - types, morphological characteristics. Bronchial asthma.

37. Autoimmune diseases - types, morphological classcharacteristics.

38. Immunodeficiency syndromes. AIDS.

39. Immunology of transplantation - types of transplantation, main principles of tissue compatibility.

40. Immunology of transplantation –types of reactions of transplant rejection.

41. General Features of tumor growth, definition and terminology.

42. Etiology of tumors. Tumor genesis theories.

43. Morphological characteristics and classification of tumors.

44. Molecular basis of the tumor growth.

45. Biology of tumor growth - paraneoplastic syndromes.

46. Biology of tumor growth - staging and grading. Metastases.

47. Benign and malignant tumors – general characteristics.

48. Epithelial tumors – morphological characteristics.

49. Mesenchymal tumors - morphological characteristics.

50. Pigment tumors - types, morphological characteristics.

51. Teratomas - types, morphological characteristics.

52. Precancerous lesions. Displasia.

53. General principles of the infectious process - pathogenetic mechanisms and morphological manifestations.

54. Respiratory infections and tuberculosis - morphological characteristics.

55. Gastrointestinal infections - morphological characteristics.

56. Diseases caused by parasites - morphological characteristics. Infections of childhood – general characteristics.

57. Infectious diseases in the childhood – general characteristics.

58. Sexually transmitted infections - general characteristics.

59. Morphological signs of the physical and the chemical injuries.

60. Professional diseases.

61. Nutritional disorders - general characteristics, types, morphological manifestations.

62. Nutritional disorders – obesity.

63. Nutritional disorders. Avitaminoses.

64. Cell aging. Aging of the organism.

65. Developmental disorders - teratogenic factors, types of malformations.

66. Genopathies and blastopathies – types.

67. Embryopathies – types, morphological manifestations.

68. Fetopathies – types, morphological manifestations.