

Portal: Questions for final examination in pathology (1. LF UK, GM)

General Tips for the Pathology Exam

Final Examination Questions

A. General Pathology

1. General mechanisms of the cell injury
2. Cell death: necrosis, apoptosis
3. Tissue and organ adaptation - definitions, examples
4. Hyperplasia
5. Hypertrophy
6. Atrophy
7. Metaplasia
8. Pathology of cell organelles and cytoskeleton
9. Metabolic disorders and intracellular metabolite accumulations
10. Intracellular accumulation of lipids - steatosis
11. Intracellular accumulation of proteins
12. Amyloidosis
13. Glycosaminoglycan accumulations (mucopolysaccharidoses), mucoviscidosis
14. Disorders of saccharide metabolism (diabetes mellitus, glycogenoses)
15. Exogenous pigmentations, including pneumoconioses
16. Endogenous pigmentations
17. Pathologic calcification
18. Disorders of water transport, hydration and cell swelling
19. Cardial findings in circulatory failure
20. Extracardial findings in circulatory failure
21. Thrombosis
22. Embolism
23. Hyperemia
24. Ischemia
25. Infarction
26. Edema
27. Dehydration
28. Hemorrhage
29. Faintness, shock and circulatory collapse
30. Definition and causes of inflammation
31. Macroscopic findings in inflammation
32. Basic microscopic features of inflammation
33. Acute inflammation
34. Phases of inflammation
35. Cellular events in inflammation
36. Outcomes of acute inflammation Healing in acute inflammation
37. Chronic inflammation
38. Systematic in morphologic patterns of exudative inflammation
39. Morphologic patterns of superficial inflammation and its healing
40. Morphologic patterns of interstitial inflammation and its healing
41. Granulomatous inflammatory disorders
42. Tuberculosis – forms and findings
43. Primary (preimmune) tuberculosis
44. Secondary (reactivation, postprimary) tuberculosis
45. Sarcoidosis
46. Acquired syphilis
47. Congenital syphilis
48. Leprosy
49. Systemic effects in inflammation
50. Regeneration and repair
51. Wound healing
52. Healing of thrombi, hematomas and fractures
53. Immune mechanisms of tissue injury
54. Pathology of transplantation
55. Autoimmune diseases
56. Immunodeficiency
57. Definition and classification of tumors
58. Characteristics of benign, borderline and malignant tumors
59. Local tumor growth Metastasis
60. Hereditary and acquired preneoplastic conditions and lesions (precanceroses)

61. Cancerogenes
62. Molecular basis of neoplasia Genomic instability
63. Tumor typing, grading and staging
64. Tumor-like conditions (pseudotumors)
65. Epithelium tumors
66. Mesenchymal tumors
67. Mesothelium tumors (mesotheliomas)
68. Hematopoietic and lymphoid tissue tumors
69. Neuroectodermal tumors
70. Melanocytic tumors
71. Germ cell tumors
72. Mixed tumors
73. Virus and host cell interactions
74. Morphologic patterns of the most frequent viral infections of mucosae and skin
75. Morphologic patterns of the most frequent viral infections of respiratory system
76. Mechanisms of bacterial injury to cells and tissues
77. Local and systemic changes in infections
78. Morphologic patterns of the most frequent Gram-positive bacterial infections
79. Morphologic patterns of the most frequent Gram-negative bacterial infections
80. Acid-fast rods infections
81. Spirochaetal infections
82. Anaerobic infections
83. Obligate intracellular bacterial infections
84. Morphologic patterns of the most frequent intestinal parasitic diseases (giardiasis, amoebiasis, taeniasis, ascariasis, enterobiasis, strongyloidiasis, ancylostomiasis,)
85. Morphologic patterns of the most frequent systemic parasitic diseases (trypanosomiasis, toxocariasis, schistosomiasis, leishmaniasis, hydatidiasis, trichinosis, filariasis,)
86. Toxoplasmosis
87. Malaria
88. Sexually transmitted infections
89. Superficial mycoses
90. Deep mycoses
91. Chemical causes of diseases
92. Physical causes of diseases
93. Nutritional diseases
94. Congenital developmental disorders – types, causes, pathogenesis, consequences

B. Organ Pathology

B.1. Circulatory System

1. Vasculitis
2. Aneurysms
3. Atherosclerosis
4. Diseases of veins, varices
5. Neoplasms of blood vessels
6. Pathology of lymphatic vessels
7. Congenital heart defects
8. Ischemic heart disease
9. Hypertension, heart in hypertension
10. Pathology of pulmonary circulation
11. Diseases of endocardium
12. Rheumatic heart disease
13. Infectious endocarditis
14. Noninfectious endocarditides
15. Valvular defects
16. Diseases of myocardium
17. Diseases of pericardium
18. Age related heart diseases
19. Neoplasms of heart

B.2. Hematopoietic and Lymphoid Systems

1. Anemias
2. Chronic myeloproliferative diseases
3. Myelodysplastic syndromes
4. Leukemias
5. Plasma cell neoplasms and monoclonal immunoglobulin deposition diseases
6. Hemorrhagic diseases
7. Inborn disorders of blood coagulation
8. Acquired disorders of blood coagulation
9. Lymphadenitides
10. Non-inflammatory lymphadenopathies
11. Neoplasms of lymph nodes and extranodal lymphatic tissue (lymphomas)
12. Non-Hodgkin lymphomas

13. Hodgkin lymphoma (Hodgkin disease)
14. Langerhans cell histiocytosis
15. Splenomegaly
16. Diseases of thymus

B.3. Respiratory System

1. Non-neoplastic diseases of nose, paranasal sinuses, nasopharynx
2. Tumours of nose, paranasal sinuses, nasopharynx
3. Non-neoplastic diseases of larynx and trachea
4. Tumours of larynx and trachea
5. Bronchitis, bronchostenosis and bronchiectasia
6. Astma bronchiale
7. Disorders of lung aeration
8. Disorders of lung circulation
9. Lung edema
10. Pulmonary trombembolism
11. Diffuse alveolar damage
12. Lung inflammation - classification
13. Bronchopneumonia and lobar pneumonia
14. Interstitial pneumonias
15. Granulomatous lung inflammation
16. Pneumoconioses
17. Lung tumours
18. Pathology content of the pleural cavity
19. Pleuritis
20. Tumours of the pleural cavity

B.4. Gastrointestinal System

1. Oral cavity – regressive and metabolic changes, pigmentation
2. Acute inflammatory diseases of the oral cavity
3. Chronic inflammatory diseases of the oral cavity
4. Tumours and pseudotumours of the oral soft tissues
5. Orofacial epithelial neoplasms
6. Developmental disorders of dentice
7. Dental caries
8. Pulpitis Periodontitis Parodontopathies
9. Head and neck cysts
10. Odontogenic tumours
11. Non-neoplastic salivary gland diseases
12. Neoplasms of salivary glands
13. Diseases of pharynx and tonsils
14. Non-neoplastic diseases of esophagus
15. Tumours of esophagus
16. Gastritis
17. Peptic ulcer
18. Neoplasms of stomach
19. Diverticula
20. Malabsorption syndromes
21. Infectious inflammations of intestine
22. Idiopathic inflammations of intestine
23. Appendicitis
24. Disorders of the bowel integrity and position
25. Ileus
26. Neoplasms of intestine
27. Diseases of peritoneum
28. Hernias
29. Disorders of the liver development
30. Regressive changes of the liver (necrosis, apoptosis, storage diseases, jaundice ...)
31. Metabolic liver diseases
32. Icterus and cholestasis
33. Viral and autoimmune hepatitisides
34. Immune inflammatory diseases of the intrahepatic biliary ducts
35. Drug and chemicals related hepatopathies
36. Liver cirrhosis
37. Neoplasms and pseudotumours of the liver and intrahepatic biliary tree
38. Non-neoplastic diseases of the gall bladder and extrahepatic bile ducts
39. Neoplasms of the gallbladder and extrahepatic bile ducts
40. Non-neoplastic diseases of pancreas
41. Neoplasms of pancreas

B.5. Excretory System

1. Developmental renal diseases
2. Diseases of renal tubules and interstitium

3. Morphology features of “benign” and malignant hypertension in kidney
4. Atherosclerosis, infarction, and cortical necrosis in kidney
5. Vasculitides affecting the kidney
6. Diabetic nephropathy (glomerulosclerosis and other diabetes related kidney diseases)
7. Rapidly progressing glomerulonephritis
8. Glomerulopathies with nephrotic syndrome
9. Diseases of glomerules manifesting with hematuria
10. Systemic lupus erythematosus and its kidney manifestation
11. Kidney transplantation and rejection morphology
12. Neoplasms of kidney
13. Non-neoplastic diseases of the urinary tract
14. Neoplasms of the urinary tract

B.6. Male Genital System

1. Non-neoplastic diseases of penis and scrotum
2. Neoplasms of penis and scrotum
3. Non-neoplastic diseases of testis
4. Neoplasms of testis
5. Non-neoplastic diseases of prostate and seminal vesicles
6. Neoplasms of prostate and seminal vesicles

B.7. Female Genital System and Breast

1. Non-neoplastic diseases of vulva
2. Neoplasms of vulva
3. Non-neoplastic diseases of vagina
4. Neoplasms of vagina
5. Non-neoplastic diseases of uterine cervix
6. Cervical precanceroses
7. Neoplasms of uterine cervix
8. Non-neoplastic diseases of uterine body
9. Neoplasms of uterine body
10. Diseases of salpinx
11. Ovarian cysts
12. Epithelial ovarian neoplasms
13. Germinal tumours of ovary
14. Gonadostromal and mixed tumours of ovary
15. Diseases of placenta
16. Pathology of pregnancy
17. Non-neoplastic diseases of breast
18. Neoplasms of breast
19. Diseases of male breast

B.8. Nervous System

1. Brain edema, hydrocephalus
2. Disorders of the CNS circulation - ischemia, hemorrhage
3. Intracranial bleeding
4. Fractures of the skull, brain commotion and contusion
5. Meningitis, encephalitis, myelitis
6. Degenerative diseases of CNS
7. Demyelination diseases
8. Prion diseases
9. Epilepsy - epileptic syndrome
10. Perinatal CNS damage
11. Neoplasms of brain and meninges

B.9. Musculoskeletal System

1. Disorders of the skeletal development
2. Rickets and osteomalacia
3. Osteitis fibrosa cystica and renal osteopathy
4. Bone atrophy: osteopenia and osteoporosis
5. Necrosis of bone
6. Fractures and their healing
7. Bone inflammation
8. Tumours and tumour-like lesions of bone
9. Non-neoplastic diseases of joints
10. Pseudotumours and tumours of joints
11. Diseases of tendons and tendon sheaths
12. Diseases of muscles

B.10. Endocrine System

1. Non-neoplastic diseases of the pituitary gland

2. Neoplasms of the pituitary gland
3. Diseases of pineal gland
4. Non-neoplastic thyroid diseases and thyroidal syndromes
5. Neoplasms of thyroid gland
6. Non-neoplastic diseases of parathyroid glands and parathyroidal syndromes
7. Neoplasms of the parathyroid gland
8. Non-neoplastic diseases of adrenal cortex
9. Neoplasms of adrenal cortex
10. Adrenocortical syndromes
11. Diseases of adrenal medulla and related syndromes
12. Diseases of Langerhans islets and related syndromes

B.11. Integumentary System

1. Non-infectious inflammations of the skin
2. Infectious inflammations of the skin
3. Inflammations of hair follicles
4. Benign neoplasms of the skin (epithelial and mesenchymal)
5. Malignant neoplasms of the skin (epithelial and mesenchymal)
6. Pigmented nevi and melanoma

B.12. Perinatal Pathology

1. Mors praenatalis and mors neonatalis
2. Perinatal injuries
3. Early and late asphyxia syndrome
4. Neonatal brain bleeding, necrotizing enterocolitis and other complications of perinatal period