

PATHOPHYSIOLOGY ORAL EXAM QUESTIONS (2023./2024.)

1. Disorders of energy metabolism
2. Hypoxia and cyanosis
3. Compensatory mechanisms in hypoxia
4. Dysenzymatic and substrate hypoenergenesis
5. Hypoenergenesis of selected tissues
6. Hyperglycemia
7. Pathophysiology of diabetes mellitus
8. Pathophysiology of diabetic complications
9. Hypoglycemia
10. Disorders of lipoprotein metabolism
11. Pathogenesis and consequences of atherosclerosis
12. Pathophysiology of malnutrition
13. Anabolism and catabolism of proteins in pathological processes
14. Development of protein deficiency and its consequences
15. Disorders of sodium and water balance
16. Disorders in fluid transport over capillary membrane
17. The mechanism of edema formation in systemic disorders
18. Disorders of potassium homeostasis
19. Disorders of calcium and phosphorus homeostasis
20. Compensatory mechanisms in acid-base disorders
21. Respiratory acidosis and alkalosis
22. Metabolic acidosis
23. Metabolic alkalosis
24. Pathophysiological consequences of acid-base disorders
25. Etiology of endocrinopathies
26. Functional disorders of anterior pituitary gland
27. Functional disorders of posterior pituitary gland
28. Pathophysiology of hypothyroidism
29. Pathophysiology of hyperthyroidism
30. Pathophysiology of hyperfunction of adrenal cortex
31. Pathophysiology of hypofunction of adrenal cortex
32. Functional disorders of parathyroid glands
33. Disorders of the renin-angiotensin system
34. Pathophysiological significance of nitric oxide and reactive oxygen species
35. Pathophysiology of hyperthermia
36. Pathophysiology of fever
37. Pathophysiology of hypothermia
38. Autoimmunity
39. Immunological hypersensitivity
40. Pathophysiology of selected rheumatic diseases
41. Pathophysiology of acute inflammation
42. Systemic inflammatory response and multiple organ dysfunction syndrome
43. Pathophysiology of infection

44. Pathophysiology of septic shock
45. Pathophysiology of circulatory shock
46. Pathogenetic types of circulatory shock
47. Functional disorders of specific organ systems in circulatory shock
48. Pathophysiology of CRUSH syndrome
49. Anemia - general pathogenesis and consequences
50. Disorders of red blood cell formation and maturation
51. Disorders of hemoglobin synthesis and structure
52. Haemolytic anemia
53. Polycythemia and erythrocytosis
54. Quantitative and qualitative leukocyte disorders
55. The pathophysiology of leukemia
56. Hemorrhagic diathesis
57. Quantitative and qualitative platelet disorders
58. Disorders of plasma coagulation factors
59. Thrombophilias
60. Aortic stenosis and insufficiency
61. Mitral stenosis and insufficiency
62. Cardiac filling disorders
63. Heart rhythm and conduction disorders
64. Ischemic myocardial damage, causes and consequences
65. Pathophysiology of congenital heart defects
66. Pathophysiology of cardiac overload
67. The dynamics and consequences of cardiac hypertrophy
68. The pathogenesis of heart failure
69. Compensatory mechanisms in heart failure
70. Development and consequences of cardiac decompensation
71. Disorders of cardiac output
72. Pathophysiology of arterial hypertension
73. Pathophysiology of essential hypertension
74. Pathophysiology of secondary arterial hypertension
75. Pathophysiology of arterial hypotension
76. Arterial pulse disorders
77. Pathophysiology of hyperventilation
78. Pathophysiology of hypoventilation
79. Obstructive pulmonary disorders
80. Restrictive pulmonary disorders
81. Ventilation-perfusion mismatch disorders
82. Disorders of pulmonary gas diffusion
83. Disorders of the pulmonary fluid transport and blood circulation
84. Pathophysiology of respiratory failure
85. Interaction between pulmonary disorders and dysfunction of other organ systems
86. Disorders of renal blood flow
87. Glomerular functional disorders
88. Nephrotic syndrome
89. General and specific disorders of renal tubular function
90. Pathophysiology of acute renal failure
91. Pathophysiology of chronic kidney disease
92. Disorders of urine volume
93. Pathophysiology of proteinuria

94. Pathophysiology of nephrolithiasis
95. Pathophysiology of esophageal disorders
96. Functional disorders of the stomach
97. The pathogenesis of ulcer disease
98. Pathophysiology of maldigestion
99. Functional mucosal disorders of small intestine
100. Pathophysiology of malabsorption syndrome
101. Disorders of exocrine pancreas
102. Pathophysiology of constipation and ileus
103. Pathophysiology of diarrhea
104. Disorders of hepatic metabolic function
105. The pathogenesis of jaundice
106. Disorders in enterohepatic circulation of bile
107. Pathophysiology of gallstones
108. Disorder of hepatic blood flow
109. Disorders of salt and water balance in liver disease
110. The influence of hepatic dysfunction on other organs