1. Classification of stimulators by force.
2. Classification of stimulators according to biological compliance.
3. Excitability and its value.
4. Laws of stimulation of excitable tissues: force, time.
5. Force law
6. Time law
7. Time and force curve.
8. Chronaxia.
9. Threshold force.
10. Reobase.
11. Biopotentials.
12. Their of biopotentials.
13. RMP. Its value.
14. Method of registration of RMP
15. AMP. Its value.
16. Method of registration of AMP
17. Phases of AMP.
18. Phases of excitability.
19. Function of muscles
20. Structure of the muscles
21. Classification. Of the muscles
22. Types of skeletal muscles.
23. Single muscle contraction. Mechanism.
24. Tetanus and its types. Mechanism.
25. Function of nerves.
26. Structure of the muscles
27. Classification of nerves according to structure.
28. Laws of transmission of excitation on the nerves
29. Synapse.
30. The structure of the synapse.
31. Transmission of excitation in the synapse.
32. EPSP, mechanism of appearing
33. IPSP, mechanism of appearing
34. Cholinergic substances
35. Adrenoreactive substances
36. Autonomic nervous system
37. Parts of ANS.
38. Differences between ANS and somatic nervous system.
39. Autonomic nervous system
40. Classification of neurons.
41. Convergence, mechanism
42. Divergence, mechanism
43. Irradiation, mechanism
44. Functions of spinal cord.
45. Functions of medulla oblongata.

46. Classification of tonic reflexes (Magnus)
47. Functions of cerebellum.
48. Functions of reticular formation
49. Classification of tonic reflexes (Magnus)
50. Functions of hypotallamus.
51. Reflex. Its physiological meaning.
52. Links of reflex
53. Differences between somatic and vegetative reflex.
54. Somatic reflex
55. Vegetative reflex
56. FUS. Links of FUS.
57. Physiological meaning of FUS.
58. ECG. Its physiological meaning.
59. Intervals and waves of ECG.
60. Cardiac conduction system.
61. Cardiac cycle.
62. FUS. Links of FUS.
63. Phases of systole (cardiac cycle)
64. Phases of diastole (cardiac cycle)
65. RR-interval on ECG.
66. Atrioventricular delay,its meaning, show on ECG.
67. Show on ECG systole and diastole of auricles and ventricle
68. Tachycardia. Show on ECG.
69. Bradicardia. Show on ECG.
70. Miocardial properties
71. Automatism of miocard
72. Auscultation.
73. Phonocardiogram. Analysis of PCG.
74. Arterial pressure. (systolic, dyastolic).
75. Arterial pulce
76. Venus pulce.
77. Auscultation.
78. Phonocardiogram. Analysis of PCG.
79. The action of adrenalin on the vessels.
80. The action norepinephrine on the vessels.
81. Show on the scheme blood components.
82. Osmotic pressure.
83. Oncotic pressure.
84. Blood Ph. Acidosis and alkalosis.
85. Acidosis and alkalosis (compensated and uncompensated)
86. Respiratory acidosis and alkalosis.
87. Metabolic acidosis and alkalosis.
88. Blood proteins. Their functions.
89. Red blood cells. Functions
90. Anemia, erithropenia, erythrocytosis.

91. Show on the scheme blood components.
92. Osmotic pressure.
93. Oncotic pressure.
94. Hemoglobine. Functions.
95. White blood cells. Functions.
96. Leukocytosis,leukopenia, leukopoesis.
97. Phagocytosis. Its stages.
98. Blood groups.
99. Methods for determining blood groups.
100. Rhesus – factor.
101. Rhesus-conflict
102. Blood transfusion samples.
103. Function of the lungs
104. Breathing and its main components
105. Mechanisms of inspiration
106. Mechanisms of expiration.
107. Mechanisms of deep expiration.
108. Lung volumes.
109. Lung capacities.
110. Types of ventilation.
111. The mechanism of gas exchange in the lungs.
112. Factors affecting on gas exchange in the lungs
113. Blood gases.
114. The amount of carbon dioxide in arterial and venous blood, its compounds
115. The amount of oxygen in arterial and venous blood, its compounds
116. The concept of hypoxia.
117. The concept of hypoxemia.
118. The concept of hypercapnia.
119. The concept of hypocapnia.
120. Blood gases.
121. The amount of carbon dioxide in arterial and venous blood, its compounds
122. The amount of oxygen in arterial and venous blood, its compounds
123. Respitatory center, localization, structure.
124. Respitatory center, functions.
125. Afferent connections of RC.
126. Efferent connections of RC.
127. Connections of motoneurons with respiratory muscles.
128. Functional system supporting optimal content of gasses in blood.
129. Digestion, functions of digestive tract
130. Saliva, amount, composition, functions.
131. Gastric juice, amount, composition, functions.
132. The role of hydrochloric acid and mucus
133. The secretory function of the pancreas.

134. Quantity, composition of pancreatic juice
135. Bile secretion and excretion.
136. Impotance of bile.
137. Intestinal juice, amount, composition, functions.
138. The movement of the small intestine. Types.
139. Metabolism and energy.
140. Energy balance.
141. Free and bound energy.
142. Basic metabolism.
143. Working gain.
144. Hess law.
145. Caloric value of nutrients.
146. The principles of the diet
147. Functional system, supporting the constancy of body temperature.
148. The temperature of different areas of the skin and internal organs.
149. Heat production. The role of individual organs in the processes of heat production.
150. Heat transfer, methods of heat transfer. The role of individual organs in heat transfer
151. Organs of excretion (kidney, lungs, skin, digestive tract and mammary glands),
152. Participation of excretion organs in maintaining the homeostasis of the internal environment.
153. Functions of kidneys.
154. Nephron as a morphofunctional unit of the kidneys, its elements.
155. Processes that take place in the nephron (filtration, secretion, reabsorption, incretion).
156. The concept of oliguria, polyuria, anuria.
157. Diabetes insipidus.
158. Physiological classification of hormones (liberins, statins, tropic hormones, effect hormones).
159. Functions of hormones.
160. Intracellular mechanisms of hormone action
161. Extracellular mechanisms of action of hormones
162. Hormones of the pineal gland, their role
163. Hypothalamic statins and liberins. Their functions.
164. Hypothalamus effector hormones
165. Hormones of the thyroid, parathyroid and thymus gland
166. Hormones of the pancreas
167. Hormones of the adrenal glands
168. Components of the analyzer and their features.
169. Pupil reflex
170. Photochemical process in the retina
171. Physiological mechanisms of accommodation
172. Color vision

173. Characteristics of the hearing analyzer.
174. Air and bone conduction of sound.
175. Vestibular analyzer.
176. Functions of vestibular analyzer.
177. Physiological mechanism of pain (gate theory)
178. The biological significance of pain.
179. Antinociceptive system.
180. Vestibular analyzer.
181. Classification of painkillers.
182. The processes occurring in the cerebral cortex, their properties.
183. Types of HNA by I.P. Pavlov
184. Extraverts, introverts. Types of HNA by Eysenck.
185. Conditions for the appearance of conditional reflexes
186. The difference between conditional and unconditional reflexes.
187. Types of HNA by I.P. Pavlov
188. Extraverts, introverts. Types of HNA by Eysenck.
189. Unconditional reflexes.
190. Unconditional (external) inhibition
191. Conditional (internal) inhibition
192. The physiological basis of sleep.
193. The physiological basis of hypnosis.
194. The physiological basis of dreams.
195. Types of sleep, their meaning
196. Emotions.
197. Importance of emotions for the organism
198. Classification of emotions.
199. Unconditional (external) inhibition
200. Conditional (internal) inhibition