Program questions on General Surgery for the Faculty of General Medicine.

1. History of surgery. Surgery in ancient and Middle Ages.
2. History of surgery. Surgery in XIX and XX centuries.
3. Achievements of modern surgery.
4. N.I. Pirogov, his role in the development of anesthesiology.
5. N.I. Pirogov, his role in the development of surgery and medical education.
6. Deontology. Interrelation of the doctor with the patient and his relatives, with colleagues and medical staff.
7. Antiseptics, types. Biological antiseptics.
8. Mechanical and physical antiseptics.
9. Chemical antiseptics. The substances used for chemical antiseptics.
10. Antibiotics, their application in surgery. Principles of rational antibiotic therapy.
11. The complications due to antibiotics and their prophylaxis.
12. Asepsis. Sources and ways of distribution of infection in the organism.
13. Surgical hospital. The operational block and its routine work.
14. Ways of introduction of antiseptics.
15. Prophylaxis of exogenous and endogenous contamination.
16. Modern ways and methods of sterilization of dressing materials and operational linen.
17. Types of surgical instruments. Ways of sterilization of instruments depending on their type.
18. Surgeon's hands antisepsis. Preoperative skin preparation.
19. Prophylaxis of wounds contact infection. Stages of instruments sterilization of. Presterilizing preparation.
20. Modern sterility control methods of medical purpose products.
21. Sterilization. Physical and chemical methods of sterilization. Disinfection, types of disinfection.
22. Modern ways of sterilization of instruments with optical system.
23. Problem of hospital infection in surgery, characteristic features and ways of contamination.
24. Problem of AIDS in surgery.
25. Surgical patients care. Changing patients' underwear and bed linen.
26. Techniques of gastric lavage, catheterization of urinary bladder.
27. Preparation for operation on gastrointestinal tract. Types of enemas, techniques of the performance.
28. Preoperative period. Basic goals and principles of preliminary and immediate preparation for operation.
29. Postoperative period. Early and late postoperative complications, their prophylaxis and treatment.
30. Surgical operation. Indications for operation. Types of operative interventions.
31. Modern principles of preoperative preparation of patients before urgent and elective operative interventions.
32. Desmurgy. Kinds and types of bandages.
33. Anesthesia: general, local. History of the development. Types of anesthesia.
34. Inhalation narcosis. Narcotic substances, the equipment used during inhalation narcosis.
35. Early and late symptoms of narcotic substances overdose.
36. Pulmonary complications of inhalation narcosis. Prophylaxis and treatment.
37. Narcosis with hypothermia and hypotonia.
38. Endotracheal and endobronchial narcosis and ALV.
39. Application of muscular relaxants during endotracheal narcosis.
40. Monitoring during anaesthesia.
41. Mixed and combined narcosis. Principles of potentiation in narcosis.
42. Neuroleptanalgesia (NLA).
43. Causes of asphyxia during narcosis. Prophylaxis. Treatment.
44. Complications of narcosis in postoperative period, possible causes of asphyxia.
45. Noninhalation narcosis, its types. Narcotic substances used for noninhalation narcosis. Complications.
46. Local anesthesia during operations. Substances used for anesthesia. Novocaine blocks.

47. Intravenous, intraarterial and intraosseous anesthesia. Mechanism of action. Indications.
48. Types of regional anesthesia.
49. Peridural (epidural) anesthesia. Indications. Long-term peridural block. Mechanism of action.
50. Spinal anesthesia. Possible complications.
51. Haemorrhages. Terminology and classification.
52. Measuring blood loss, principles of compensation.
53. Internal hemorrhage. Causes. Symptoms.
54. Methods of temporary hemostasis.
55. Final hemostasis. Methods.
56. Hemorrhagic shock. Classification. Principles of treatment.
57. Indications and technique of tourniquet application.
58. History of blood transfusion and the organization of blood transfusion service.
59. Blood groups by AB0 systems and "rhesus factor".
60. Indications and contraindications for transfusion of blood components. Mechanism of action of transfused blood components.
61. Methods of hemotransfusions. Biological test, its prophylactic significance.
62. Methods of stabilization and preservation of blood components. Donor service.
63. Blood grouping using standard serums and colyclones.
64. Mistakes during blood grouping.
65. Actions before transfusion of blood components.
66. Antigenic system "rhesus factor". Determination of rhesus-attribute of blood. Test on rhesus factor compatibility.
67. Complications at blood transfusion. Prophylaxis. Treatment.
68. Air embolism during hemotransfusion. Mechanism of occurrence. Prophylaxis. Treatment.
69. Clinical features and treatment of posttransfusion shock.
70. Syndrome of massive hemotransfusions.
71. Components and preparations of blood.
72. Plasma-substituting solutions. Classification, mechanism of action.
73. Hemodynamic and disintoxicative blood substitutes.
74. Preparations for parenteral nutrition.
75. Hemodilution. Methods. Mechanism of action. Indications.
76. Classification of general disorders in damages. Syncope. Clinic. Medical care.
77. Collapse, the causes. Treatment of hypovolemic and normovolemic collapse.
78. Traumatic shock, etiology. Pathogenesis: essence of circulatory disorders in shock (phenomenon of central blood circulation). Disorders of blood flow properties and hemostasis.
79. Traumatic shock. Stages. Clinical symptoms. Principles of infusion therapy.
80. Treatment of traumatic shock.
81. Prophylaxis of shock during the medical care provision to the wounded patients.
82. Terminal conditions, sequence of medical assistance procedures.
83. Classification of injuries. Severity of injuries. Danger of injuries.
84. Closed injuries, types of them. Soft tissue contusion. Pathoanatomical changes of soft tissues. Destiny of outflowed blood. Tactics in hematomas.
85. Closed injuries: concusion, compression, contusion.
86. Contusion of joint, hemarthrosis. Sprains, ruptures of ligaments, muscles. Treatment.
87. Closed injuries of thorax and its organs. Pneumothorax. Hemothorax.
88. Closed injuries of abdominal cavity organs: parenchymatous, hollow.
89. Wounds, their classification. Symptoms of wounds.
90. Course of pathological processes and pathoanatomical changes in wound healing. Wound process. Stages of healing process.
91. Kinds of wound healings. Wound healing by primary intention. Factors causing wound healing by primary intention.
92. Wound healing by secondary intention. Factors causing wound healing by secondary intention.
93. Healing wounds of muscles, sinews, bones, cartilages, parenchymatous organs.
94. Healing wounds of brain, peripheral nerves, blood vessels.

95. Treatment of wounds, kinds. Aim and problems of medical assistance in the treatment of open injuries.
96. Surgical treatment of wounds.
97. Classification of sutures. Indications. Techniques of suturing.
98. Initial surgical debridement. Indications. Terms and principles of its fulfilment.
99. Secondary surgical debridement. Indications. Terms and principles of its fulfilment.
100. Techniques of surgical debridement. Principles of wound excision. Features of debridement of wounds contaminated by radioactive substances.
101. Gunshot wound. Characteristic features of gunshot wound. Features of medical care.
102. Treatment of purulent wounds in different phases of wound process course. Modern principles of treatment.
103. Factors causing displacement of fragments. Types of displacement. Fracture healing union.
104. Treatment of fractures. Three components of treatment system.
105. Medical care in bone fractures: а) in the place of accident; б) in surgical department.
106. Techniques of closed reduction of fragments in fractures.
107. Skeletal extension. Indications. Techniques.
108. Surgical treatment of fractures.
109. Compressive-distractive method of fracture treatment.
110. Plaster casts. Types. Techniques of application of plaster casts. Indications for application.
111. Pseudoarthrosis. Causes. Treatment.
112. Dislocations. Classification. Mechanism of occurrence. Diagnostics. Treatment. Ordinary dislocation.
113. Organization of first aid for the victims in industrial enterprises. Prophylaxis of traumatism.
114. Immobilization, indications for it. Principles, means.
115. Crush syndrome of soft tissues. Etiology. Pathogenesis: components of regulatory disorders; factors of toxemia and plasma loss.
116. Crush syndrome of soft tissues. Clinical features, course stages.
117. Factors determining degree of severity of patient's condition in crush syndrome of soft tissues.
118. Syndrome of positional compression of soft tissues. Etiology. Pathogenesis. Treatment.
119. Modern treatment of patients in crush syndrome of soft tissues depending on degree of severity of the condition.
120. Concrete actions in the provision of medical care to victims with crush syndrome at the site of incident and during transportation to medical establishments.
121. Principles of pyogenic infection prophylaxis at operative interventions and the system of treatment.
122. Surgical infection. Factors determining the development and course of surgical infection.
123. The description, etiology and pathogenesis of surgical infection.
124. The description of common phenomena in surgical infection.
125. Objectives of local treatment of surgical infection.
126. Principles of operative intervention in surgical infection.
127. Objectives of general treatment in surgical infection.
128. Abscess. Phlegmon. Features of operative treatment.
129. Principles of abscess and phlegmon drainage.
130. Mastitis. Etiology. Pathogenesis. Clinical features. Treatment. Prophylaxis.
131. Purulent diseases of hand.
132. Panaritium. Forms. Stages. Diagnostics. Technique of patient examination with panaritium.
133. Tendinous panaritium. Features of course on different fingers. Y-shaped phlegmon.
134. Bony and articular panaritium.
135. Furuncle. Carbuncle. Hydradenitis. Clinical features. Methods of surgical treatment.
136. Erysipelas. Etiology. Pathogenesis. Clinical features. Treatment. Outcomes and complications.

137. Lymphangitis. Lymphadenitis. Etiology. Clinical features. Complications of recurring lymphangitis. Treatment.
138. Purulent arthritis. Etiology. Pathogenesis. Clinical features. Treatment.
139. Outcomes of purulent arthritis. Ankylosis. Contracture, types. Loose joint.
140. Acute purulent osteomyelitis. Etiology. Pathogenesis. Development of pathoanatomical changes.
141. Clinical course of acute purulent hematogenic osteomyelitis. Diagnostics. Treatment.
142. Chronic osteomyelitis. Forms of primary chronic osteomyelitis. Clinical features.
143. Chronic purulent osteomyelitis. Etiology. Pathogenesis: sequester, sequestrum box, fistulas. Principles of surgical treatment.
144. Putrid infection (unclostridial anaerobic). Agents. Preferential localization. Clinical features. Treatment.
145. Generalized purulent infection (sepsis). Etiology. Pathogenesis: role of etiological factor, local factor, general immunobiological condition.
146. Generalized purulent infection: purulent absorption fever, septicemia, septicopyemia. Clinical features.
147. System of complex therapy of sepsis (local, general treatment).
148. Methods of organism detoxication in generalized purulent infection.
149. Tetanus. Etiology. Epidemiology. Pathogenesis. Early signs. Clinical presentation.
150. Specific and nonspecific prophylaxis of tetanus.
151. Treatment of tetanus. Technique and doses of antitetanus serum in tetanus treatment.
152. Causes of lethal outcomes in tetanus. Ways of lethality decreasing.
153. Anaerobic infection (gas gangrene). Etiology. Epidemiology. Pathogenesis. Clinical course.
154. Prophylaxis and treatment of gas gangrene.
155. Surgical tuberculosis. Etiology. Pathogenesis. Predisposing factors. Forms of surgical tuberculosis.
156. Tuberculosis of bones and joints. Stages and forms of joint tuberculosis. Diagnostics. Treatment.
157. Spinal tuberculosis. Clinical stages. Diagnostics. Treatment.
158. Surgical methods of treatment of bones and joints tuberculosis.
159. Tuberculosis of lymph nodes. Forms. Differential diagnostics. Treatment.
160. Actinomycosis. Etiology. Pathogenesis. Clinical features.
161. Actinomycosis. Methods of conservative and surgical treatment.
162. Surgical treatment of anthrax.
163. Diphtheria of wounds.
164. Surgical parasitic diseases (echinococcosis, ascariasis, opisthorchosis, amebiasis).
165. Necrosises and gangrenes. Classification. Clinical features. Treatment.
166. Acute disorder of arterial blood circulation.
167. Acute disorder of venous blood circulation.
168. Thromboembolic complications. Prophylaxis and main principles of treatment of thromboses and embolisms.
169. Burns. Classification. Criteria of severity of burn traumas.
170. Local and general effects in burns. Death causes in early and late stages.
171. Burn shock. Treatment.
172. Initial surgical debridement of thermal burn. Prophylaxis of secondary necrosis. Features of debridement of burn contaminated by radioactive substances.
173. Local treatment of burns (open and closed method).
174. Methods of operative interventions used in treatment of thermal burn.
175. Electrical trauma. Types of injuries. First aid. Treatment.
176. Frostbites. Etiology. Pathogenesis. Symptoms.
177. Frostbites. Diagnosis and treatment.
178. Main features of tumor growth. Development phases of malignant growth.
179. Theory of tumour occurrence. Carcinogenic factors and oncogenic virus.

180. Physical and chemical carcinogenic factors.
181. Biological carcinogenic factors.
182. Cancer prophylaxis. Precancer, carcinogenic factors, immunological resistance.
183. Clinical groups of oncological patients.
184. Clinical stages of malignant growth. Metastasing, recurrent tumors.
185. International classification (terminology) of malignant growth stages.
186. Treatment methods of patients with malignant neoplasms.
187. Surgical treatment of malignant growths, possible kinds of operations.
188. Ablastics and antiblastics.
189. Terminology in plastic surgery.
190. Skin plasty by free graft. Methods.
191. Application of metals and synthetic materials in reconstructive surgery.
192. Plasty of vessels, bone tissue, nerves, tendons.
193. Transplantation of bone and muscular tissue. Transplantation of marrow.
194. Transplantation of organs. Donors of organs. Organ preservation.
195. Biological bases of transplantology. Modern capabilities of organ and tissue transplantation. Reaction of tissue incompatibility.