# MINISTRY OF EDUCATION AND SCIENCE KYRGYZ REPUBLIC OSH STATE UNIVERSITY INTERNATIONAL FACULTY OF MEDICINE Department of Anatomy, Histology and Normal Physiology

«Approved"\_\_\_\_el at faculty meeting, protocol № from "28" of 2019. /Head of depart, assoc. Sakibaev K. Sh.

kAgreed" elec The chair of the UMC faculty Assoc. Sakibaev K. Sh. from "28" \_\_\_\_\_ 2019.

# Examination questions for students in the specialty "560001-General medicine" in the discipline "Topographic anatomy and operative surgery " for the 2019-2020 academic year Course – 2, semester-4

The volume of the academic load on the discipline "Topographic anatomy and operative surgery" is:

Total-120 hours of Classroom - 60 hours extracurricular (SRS) - 60 hours

Lectures – 24 hours Practical training – 36 hours Self-work – 60 hours Exam - IV semester

Discussed at the meeting of the Department of Anatomy, Histology and Normal Physiology from "\_\_\_" \_\_\_\_ 2019 y, protocol no.\_\_\_.

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# **Examination questions** on the discipline "Topographic anatomy and operative surgery»

- 1. State anterior wall of the axilla.
- 2. State posterior wall of the axilla.
- 3. Name interrelation of axillary vein and axillary artery in clavipectoral triangle of the axilla.
- 4. Name interrelation of brachial plexus and axillary artery in clavipectoral triangle of the axilla.
- 5. Name the branches of posterior fascicle of brachial plexus.
- 6. State the contents of triangular foramen.
- 7. What branches arise from the axillary artery in pectoral triangle?
- 8. What are the elements of neurovascular fascicle of the anterior surface of the arm?
- 9. What are the elements of neurovascular fascicle of the arm posterior surface?
- 10. What is the relation between median nerve and brachial artery in the upper third of the arm?
- 11. What is the relation between median nerve and brachial artery in the lower third of the arm?
- 12. Between what muscles is musculocutaneos nerve on the arm located?
- 13. Into' what branches is radial nerve in cubital fossa divided?
- 14. How many muscular compartments are formed by deep fascia on the forearm?
- 15. How many layers of muscles are located on anterior surface of the forearm?
- 16. Between what layers of muscles is Pirogov-Paron fat space situated?
- 17. State neurovascular fascicles of posterior compartment of the forearm.
- 18. How many layers of muscles are located on anterior surface of the forearm?
- 19. What structures pass through radial carpal canal?
- 20. What structures pass through ulnar carpal canal?
- 21. How many fascial compartments are located on the palmar surface of the
- 22. How many osteofascial compartments are formed on the back of the wrist?
- 23. What forms of deep whitlow do you know?
- 24. State muscles of the second layer of gluteal region.
- 25. State muscles of the third layer of gluteal region.
- 26. By what structures is the muscular lacuna bounded?
- 27. What structures pass through the vasorum lacuna?
- 28. By what structures is the femoral ring bounded?
- 29. State the walls of obturator canal.
- 30. State lateral ligaments of the ankle joint.
- 31. What diseases are most typical for the skin of axilla?
- 32. Name the branches of lateral fascicle of brachial plexus.
- 33. State the contents of quadrangular foramen.
- 34. By what muscles is the deep layer of the arm anterior surface presented?
- 35. What neurovascular fascicles of cubital fossa do you know?
- 36. What muscles by function are situated in anterior compartment of the forearm?
- 37. What muscles by function are situated in posterior compartment of the forearm?
- 38. What structures pass through lateral antebrachial canal?
- 39. Name the elements of neurovascular fascicle in popliteal fossa.

- 40. Name the walls of superior musculo-peroneal canal.
- 41. What time in summer is allowed to hold tourniquet?
- 42. What time in winter is allowed to hold tourniquet?
- 43. Name the typical site of compressing of the brachial artery.
- 44. Name the typical site of compressing of the subclavian artery.
- 45. How many ligatures are applied on proximal end of the artery for the vessel ligation in wounds?
- 46. Where is the best level of ligation of the axillary artery located?
- 47. Who was the first surgeon applying vessel's suture?
- 48. Name the operation for removal of varix dilatatated great saphenous vein on the hip by means of special director.
- 49. Name the operation for subfascial ligation of communicants in case of varix dilatation of veins of the lower limbs.
- 50. After what type of regeneration will not be the function of nerve restored?
- 51. What diastasis should remain between the ends of a nerve while suturing?
- 52. Name the operation directed on the opening of joint cavity.
- 53. Name the operation directed to mobilize an immobile joint.
- 54. Name the operation directed to restriction of the amplitude of movement or mobility in the joint.
- 55. What is the level of amputation?
- 56. How many ligatures are applied on large arteries at amputations?
- 57. At what distance above the level of amputation should the nerve be cut?
- 58. Name the classification of vessels' sutures according to their circumference.
- 59. Name the classification of vessels' sutures according to the approach.
- 60. What types of osteotomy by purpose are distinguished?
- 61. How does the boundary between the brain and facial parts of the head pass?
- 62. Where does the lateral border of the fronto-parieto-occipital region pass?
- 63. Enumerate the layers of the fronto-parieto-occipital region in succession.
- 64. What tissues are included in the scalp structure?
- 65. What is the characteristic feature of hematoma of subcutaneous fat in the fronto-parietooccipital region?
- 66. What is the characteristic feature of subperiosteal hematoma in the fronto-parieto-occipital region?
- 67. What is the characteristic feature of subaponeurotic hematoma in the fronto-parietooccipital region?
- 68. The bone of the skull fornix consists of:
- 69. How can you explain massive hemorrhage in the lesion of the vessels of the fronto-parietooccipital region?
- 70. What structures does the diploe contain?
- 71. What is connected by diploic veins?
- 72. Enumerate the layers of the temporal regions in succession.
- 73. How many fat spaces in the the temporal region do you know?
- 74. Where is the interaponeurotic fat space of the temporal region located?
- 75. Where is the subaponeurotic fat space of the temporal region located?
- 76. What vessel passes in subcutaneous tissue of the temporal region?
- 77. How is the anterior vertical line of Kronlein scheme drawn?

- 78. How is the inferior horizontal line of Kronlein scheme drawn?
- 79. Where is the trunk of the middle meningeal artery determined on the scheme of Kronlein?
- 80. Where is the anterior branch of the middle meningeal artery determined on the scheme of Kronlein?
- 81. Where is the posterior branch of the middle meningeal artery determined on the scheme of Kronlein?
- 82. What passes through spinous foramen?
- 83. What does the foramen rotundum transmit?
- 84. What does the foramen ovale transmit?
- 85. What passes through the foramen lacerum?
- 86. What does subarachnoid space contain?
- 87. What does venous sinuses contain?
- 88. Where is the middle meningeal artery located?
- 89. How does the border between head and neck pass?
- 90. Where are the superficial mimic muscles of the face located?
- 91. The mimic muscles attached to:
- 92. By what nerve are all the mimic muscles of the face supplied?
- 93. By what means is the capsule of the parotid gland formed?
- 94. Where is projection of excretory duct of the parotid gland located?
- 95. Into what vein does blood from facial department of the face outflow?
- 96. Facial vein has anastomoses with:
- 97. The retropharyngeal space is located between:
- 98. In what direction is it necessary to make a section of soft tissues at initial surgical dbridement of wounds of the fronto-parieto-occipital region?
- 99. What form is it necessary to give to a wound at initial surgical d-bridement of the soft tissues of the fronto-parieto-occipital region?
- 100. What actions should be taken at the initial surgical d-bridement of the fronto-parietooccipital region, if the wound large bony fragment is connected to bones of the skull fornix by periosteum?
- 101. What ways are used for arrest of bleeding from diploic veins of the fronto-parieto-occipital region?
- 102. What wounds of the head are called penetrating?
- 103. What bones layers of the skull fornix are more inclined to the damage in skull traumas?
- 104. How trepanation with preserving of the fragment of the bone is called?
- 105. In what direction should sections be done at purulent parotiditis?
- 106. Where is the point of digital pressing of the facial artery located?
- 107. What is anthrotomy?
- 108. Where is the trepanation of the mastoid process made?
- 109. In what way skin, subcutaneous fat and glands capsule are dissected performing operation at purulent parotiditis?
- 110. How are the trepanations of the skull classified?
- 111. How does the boundary between the neck and head pass?
- 112. How does the boundary between the neck and chest pass?
- 113. How many fasciae are there on the neck according to Shevkunenko?
- 114. What does the superficial fascia contain anteriorly?
- 115. Where is the projection of the cervical plexus located?
- 116. Where is the projection of the brachial plexus located?
- 117. Where is the projection of the carotid sinus located?
- 118. Where is the projection of the basic neurovascular fascicle located?
- 119. The previsceral fat space is communicated with:
- 120. The retrovisceral space is communicated with:
- 121. What does pretracheal fat space contain?

- 122. What does the submental triangle contain?
- 123. Where is the larynx located (skeletotopy)?
- 124. What is the skeletotopy of the esophagus?
- 125. What is the skeletotopy of the pharynx?
- 126. State the skeletotopy of the trachea.
- 127. By what is the trachea supplied in the neck?
- 128. By what nerve is the trachea supplied?
- 129. Name the position of the patient in vagosympathetic blockade of the cervical plexus?
- 130. In what place is the needle inserted in vagosympathetic blockade of the cervical plexus?
- 131. What is the upper tracheostomy?
- 132. What vessels are ligated in upper tracheostomy?
- 133. Name the approach for ligation of carotid arteries.
- 134. Where the place of ligation of external carotid artery located?
- 135. What triangles are located in the lateral triangle of the neck?
- 136. By what fascia is capsule of mammary gland formed?
- 137. The main way of lymphatic drainage passes from mammary gland into:
- 138. What structures pass between the medial and lateral crura of the lumbar part of the diaphragm?
- 139. Name the syntopy of structures of intercostal neurovascular fascicle (top-down)?
- 140. Enumerate the parts of the lungs root in horizontal plane or from forward backward in succession.
- 141. Enumerate the parts of the right lung root in vertical plane in succession.
- 142. How many segments does the right lung include?
- 143. What incision is used for treatment of intramammary breast abscesses?
- 144. What incision is used for treatment of retromammary breast abscesses?
- 145. State the place of pleural puncture for removing of fluid.
- 146. State the place of pleural puncture for removing of air.
- 147. What does the prophylaxis of pneumothorax in pleural puncture include?
- 148. Enumerate in succession the parts of the root processing (ligation of structures) at pulmonectomy in case of tuberculosis.
- 149. Enumerate in succession the parts of the root processing (ligation of structures) at pulmonectomy in case of cancer.
- 150. What incision is used for treatment of premammary breast abscesses?
- 151. What structures are removed in an extended sectoral resection of the mammary gland?
- 152. What structures are removed in simple mastectomy?
- 153. Name the classification of the rib resection.
- 154. What is the first medical assistance at treatment of the pneumothorax?
- 155. In what area is the puncture of pericardium or paracentesis made?
- 156. What is named "Tomson's fascia" (plate)?
- 157. The linea alba is formed by:
- 158. The posterior layer of the rectus sheath is formed beneath the umbilicus by:
- 159. How many folds does parietal peritoneum form on the inferior part of the anterior abdominal wall?
- 160. Name the folds of the peritoneum between which supravesical fossa is located?
- 161. The lateral umbilical fold of peritoneum is formed by:
- 162. The medial umbilical fold of peritoneum is formed by:
- 163. What is located laterally to lateral umbilical folds?
- 164. The inferior wall of the inguinal canal is formed by:
- 165. The anterior wall of the inguinal canal is formed by:
- 166. The superior wall of the inguinal canal is formed by:
- 167. On what does the superficial ring of the inguinal canal project on the internal surface of abdominal wall?

- 168. The superficial ring of the inguinal canal is formed by:
- 169. On what does the deep ring of the inguinal canal project on the internal surface of abdominal wall?
- 170. What kind of hernia protrudes through the medial inguinal fossa?
- 171. What kind of hernia protrudes through the lateral inguinal fossa?
- 172. On what does the femoral ring project on the posterior surface of the abdominal wall?
- 173. The superficial ring of the femoral canal is formed by:
- 174. What is the average length of femoral canal in women?
- 175. What is hernial gates?
- 176. Give the definition of sliding hernia.
- 177. What is an urgent indication for herniotomy?
- 178. What must you do with hernial contents after opening the nernial sac?
- 179. What wall of the inguinal canal is strengthened in oblique inguinal hernia?
- 180. What anatomical structures are stitched to the inguinal ligament in repair on Girard method by second row of sutures?
- 181. What wall of the inguinal canal is strengthened in the direct inguinal hernia?
- 182. What anatomical structures are stitched anterior to spermatic cord in repair of the inguinal canal according to Bassini method?
- 183. What kind of inguinal hernia does congenital hernia correspond to?
- 184. What wall of the inguinal canal is strengthened in congenital inguinal hernia?
- 185. Name the most important stage of herniotomy in strangulated hernias.
- 186. In what direction is section of incarcerating ring made in direct inguinal hernia?
- 187. In what direction is section of incarcerating ring made in oblique inguinal hernia?
- 188. In what direction is section of incarcerating ring made in femoral hernia?
- 189. The anterior wall of the rectus sheath is formed above umbilicus by:
- 190. Name the muscles between which intercostal nerves are located in the lateral part of the abdominal wall?
- 191. What large arteries pass along the posterior surface of the rectus abdominis?
- 192. Between the systems of what arteries do superior and inferior epigastric arteries have anastomoses?
- 193. What main superficial veins pass in the subcutaneous fat of the anterior abdominal wall?
- 194. What passes through the vascular lacuna?
- 195. Name initiating factors of herniation.
- 196. Name methods of treatment of direct inguinal hernia.
- 197. The abdominal cavity is divided into upper and lower compartments (floors) by:
- 198. By what is the right hepatic bursa limited on the left?
- 199. By what is the left hepatic bursa limited posteriorly?
- 200. Name the anterior wall of the pregastric bursa.
- 201. By what is the epiploic foramen limited anteriorly?
- 202. By what is the left subphrenic space separated from left lateral canal?
- 203. Name the syntopy of structures of the hepatoduodenal ligament from right to left.
- 204. State peritoneal coverage of stomach.
- 205. Name the skeletotopy of the ascending part of the duodenum.
- 206. By systems of what arteries is the part of duodenum located in upper floor of abdominal cavity supplied?
- 207. By systems of what arteries is the part of duodenum located in lower floor of abdominal cavity supplied?
- 208. By what layer of the hollow organ is the canal of tubular stoma formed?
- 209. By what layer of the hollow organ is the canal of lip-shaped stoma formed?
- 210. What kind of intestinal stomas are characterized by self closure after evacuation of the tube?
- 211. In what direction should perforated ulcer be sutured?

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- 212. Name the groups of indications for making of gastroenteroanastomoses?
- 213. What artery can be damaged while performing the posterior behind transverse colon gastroenteroanastomosis?
- 214. Through what structure is the intestinal loop moved while performing the posterior behind transverse colon gastroenteroanastomosis?
- 215. Of what size must be intestinal loop while performing the posterior behind transverse colon gastroenteroanastomosis?
- 216. What should be done for prevention of vicious circle while performing the anterior in front of transverse colon gastroenteroanastomosis?
- 217. Name the groups of indications for vagotomy.
- 218. What is the definition of truncal vagotomy?
- 219. What is the definition of selective vagotomy?
- 220. What is the definition of selective proximal vagotomy?
- 221. What kinds of gastroduodenoanastomoses do you know?
- 222. Into what compartments is the abdominal cavity divided?
- 223. In what regions is the greater part of the stomach located?
- 224. What arteries are located on lesser stomach curvature?
- 225. What arteries are located on greater stomach curvature?
- 226. What operations on the stomach are called radical?
- 227. What kinds of gastroenteroanastomoses are performed more often?
- 228. What kinds of gastrojejunoanastomoses do you know?
- 229. The lower compartment of the abdominal cavity include:
- 230. The right mesenterial sinus is superiorly limited by:
- 231. The right mesenterial sinus is bounded from the left mesenterial sinus by:
- 232. The left mesenterial sinus is limited on the left by:
- 233. The right lateral canal is laterally limited by:
- 234. The left lateral canal is medially limited by:
- 235. Into what does the right lateral canal pass superiorly?
- 236. State peritoneal coverage of jejunum and ileum.
- 237. State skeletotopy of root of mesentery.
- 238. State innervation of jejunum and ileum.
- 239. Where is the cecum more often located?
- 240. State normal position of the apex of appendix.
- 241. State peritoneal coverage of the ascending and descending colon.
- 242. Where is the left colic flexure located?
- 243. Where is the right colic flexure located?
- 244. State peritoneal coverage the transverse and sigmoid colon.
- 245. At what level does the sigmoid colon begin?
- 246. At what level does the sigmoid colon become continuous with the rectum?
- 247. By what is the blood supply of ileocolic junction provided?
- 248. What kind of suture is better for closure of the intestinal stab-wounds?
- 249. What kind of suture is better for closure of the intestinal wounds less then 1/3 of diameter?
- 250. What kind of suture is better for closure of the intestinal wounds more then 1/3 of diameter?
- 251. In what direction should the surgeon put intestinal forceps to perform a resection with end-to-end anastomosis?
- 252. With what purpose should the surgeon put intestinal forceps in oblique direction to perform a resection with end-to-end anastomosis?
- 253. With what purpose should the surgeon close a defect of mesentery at bowel resection?

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- 254. Name the approaches for appendix.
- 255. Name the structures through which the incision at appendectomy passes.
- 256. In what distance from the base of appendix is purse-string suture put on the caecum at appendectomy?
- 257. What is Meckel's diverticulum?
- 258. The left mesenterial sinus is freely communicated with:
- 259. What peritoneal recesses are located at duodenojejunal junction?
- 260. What peritoneal recesses are located at ileocolic junction?
- 261. State peritoneal coverage of the cecum.
- 262. State the venous outflow from the large intestine.
- 263. What kinds of appendectomy do you know?
- 264. Name the superior boundary of the liver along the right midclavicular line?
- 265. What structure is necessary to squeeze for temporal arrest of hepatic bleeding?
- 266. State peritoneal coverage of liver.
- 267. Beetwen what lobes is the gallbladder situated on visceral surface of the liver?
- 268. Where is the point of projection of the fundus of the gallbladder on the anterior abdominal wall determined?
- 269. Name the skeletotopy of the tail of pancreas.
- 270. Name the line of the projection of the pancreas on anterior abdominal wall.
- 271. To what part of the duodenum is the pancreas fixed?
- 272. By what arteries are the body and tail of pancreas supplied?
- 273. Name the skeletotopy of the spleen.
- 274. State peritoneal coverage of spleen.
- 275. In what area is spleen located?
- 276. Name the most common complication during cholecystectomy from bottom.
- 277. State main sources of liver blood supply.
- 278. From fusion of what veins is the portal vein formed?
- 279. What structures are located posterior to the head of the pancreas?
- 280. What kinds of liver resection do you know?
- 281. What kinds of cholecystectomy do you know?
- 282. Name the most common complications during cholecystectomy from neck.
- 283. What structures are removed in pancreatoduodenal resection?
- 284. How much layers of muscles are located in lumbar region?
- 285. Into what does the first layer of the retroperitoneal fat freely pass inferiorly?
- 286. Name the syntopy of structures of the renal pedicle from posteriorly to anteriorly.
- 287. How many constrictions in ureter are(is) possible?
- 288. State structure which is located medially from right ureter.
- 289. State structure which is located medially from left ureter.
- 290. What does the right ureter cross at level linea terminalis?
- 291. What does the left ureter cross at level linea terminalis?
- 292. Name the sequence of kidney elimination from adipose capsula at nephrectomy.
- 293. What is the sequence of renal pedicle processing by extraperitoneal approach at nephrectomy?
- 294. What is the sequence of renal pedicle processing at nephrectomy in case of tumors?
- 295. What layer of renal pelvis is not sutured after pyelotomy?
- 296. What kind of operation is performed for preservation kidney function at impossibility of ureter anastomosis formation?
- 297. Where is the point of injection for paranephral block located?
- 298. Name muscles of the first layer of lumbar region.
- 299. Name weak places of lumbar region.
- 300. By what is proper retroperitoneal fat limited anteriorly and posteriorly?
- 301. Beetwen what zones is paranephron located posteriorly and anteriorly?

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- 302. Beetwen what zones is paracolon located posteriorly and anteriorly?
- 303. At what level is the paracolon finished inferiorly?
- 304. Name the skeletotopy of kidneys.
- 305. Name parietal inflows of inferior vena cava.
- 306. State transperitoneal approaches to organs of retroperitoneal space.
- 307. What are the consequences of nephroptosis?
- 308. What kinds of transplantation of kidney do you know?
- 309. State the upper border of small pelvis.
- 310. What structure closes an output from small pelvis?
- 311. State the structures which pass through pelvic diaphragm at women.
- 312. State location of sacral plexus.
- 313. State the sources of formation of sacral plexus.
- 314. How many sphincters are located in rectum?
- 315. Where the place of injection for pudendal block is located?
- 316. What kind of manipulation is usually applied for diagnostics of abdominal cavity pathology in women?
- 317. What space is needled at puncture of abdominal cavity through posterior vaginal fornix?
- 318. What kinds of hemorrhoid do you know?
- 319. Name the incision which is usually done at Milligan-Morgan operation.
- 320. Name muscles covering walls of small
- 321. State the structures which pass through urogenital diaphragm at women.
- 322. What organs are located in peritoneal compartment of small pelvis in men?
- 323. Name sources of sympathetic innervation of organs of small pelvis.
- 324. What parts in pelvic department of rectum do you know?
- 325. What ways of pudendal block do you know?

### For example

### **TEST QUESTIONS**

- 1. Name the operation for subfascial ligation of communicants in case of varix dilatation of veins of the lower limbs.
- a. by Madelung;
- b. by Troyanov-Trendelenburg;
- c. by Babckock;
- d. by Kockett;
- e. by Linthon.
- 2. After what type of regeneration will not be the function of nerve restored?
- a. true;
- b. heterotopic;
- c. hypertrophic;
- d. heterogeneous.
- 3. What is anthrotomy?
- **a.** opening of the joint;
- **b.** resection of the joint;
- **c.** puncture of the joint;
- d. trepanation of the mastoid process.
- 4. Where is the trepanation of the mastoid process made?
- **a.** in temporal region;



- **b.** in the base of the mastoid process;
- **c.** in the apex of the mastoid process;
- **d.** in the middle of the mastoid process;
- **e.** in the projection of the triangle Shipo.
- 5. What incision is used for treatment of retromammary breast abscesses?
- **a.** arched incision along the underbreast fold;
- **b.** radial incision;
- **c.** paraareolar incision;
- d. transverse incision.
- 6. State the place of pleural puncture for removing of fluid.
- **a.** in V-VI intercostal spaces between scapular and posterior axillary lines;
- **b.** in II intercostal space along medial clavicular line;
- c. in VII-VIII intercostal spaces between medial clavicular and anterior axillary lines;
- d. in VII-VIII intercostal spaces between scapular and posterior axillary lines.

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