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Кафедра оперативной хирургии и топографической анатомии

А.А. СТЕНЬКО

ОПЕРАТИВНАЯ ХИРУРГИЯ И ТОПОГРАФИЧЕСКАЯ АНАТОМИЯ

Тесты для студентов факультета иностранных учащихся (курс обучения на английском языке)

A.A. STENKO

OPERATIVE SURGERY AND TOPOGRAPHIC ANATOMY

Tests for the students of the Faculty of foreign students (In English)

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В сборнике тестовых заданий по топографической анатомии и оперативной хирургии представлены все разделы дисциплины. Тестовый контроль знаний студентов является составной частью экзамена по предмету. Пособие предназначено для студентов медицинских вузов, обучающихся на английском языке.

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All items of discipline are well presented in this testbook from topographic anatomy and operative surgery. Test control is a component of subject examination. It is recomenned for students of medical universities with the English language of studies.

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Topic 1

TOPOGRAPHIC ANATOMY AND OPERATIONS ON A HEAD

1. The head is divided into following departments:

a. brain department;
b. face department;
c. nose department;
d. ear department;
e. mouse department.

2. How does the boundary between the brain and facial parts of the head pass?

a. through mental protuberance, lower jaw, external acoustic meatus, mastoid process, the upper nuchal line, external occipital tuber;
b. through nose bridge, upper edge of eyepit, zygomatic arch, external acoustic meatus;
c. through angle of mouth, zygomatic arch, external acoustic meatus;
d. through nose bridge, wing of nose, upper edge of eye-pit, zygomatic arch, external acoustic meatus.

3. The fornix of the skull is divided into:

a. frontoparietooccipital region;
b. eyepit region;
c. temporal region;
d. mastoid region;
e. parotideomasseteric region.

4. What does brain department of the head include?

a. skull fornix;
b. skull base;
c. external acoustic meatus;
d. zygomatic arch.

5. The anterior surface of the face is divided into:

a. buccal region;
b. nose region;
c. deep region;
d. mouth region;
e. parotideomasseteric region;
f. eye-pit region.

6. The lateral surface of the face is divided into:

a. buccal region;

b. nose region;
c. deep region;
d. mouth region;
e. parotideomasseteric region;
f. eye-pit region.

7. Where does the lateral border of the frontoparietooccipital region pass?

a. along the inferior temporal line;
b. along the upper nuchal line;
c. along the lower nuchal line;
d. along the superior temporal line.

8. Enumerate the layers of the frontoparietooccipital region in succession.

a. skin, subcutaneous fat, periosteum, subperiosteal fat, galea aponeurotica, bone;
b. skin, subcutaneous fat, galea aponeurotica, periosteum, subperiosteal fat, bone;
c. skin, subcutaneous fat, galea aponeurotica, subaponeurotic fat, periosteum, subperiosteal fat, bone;
d. skin, subcutaneous fat, galea aponeurotica, subperiosteal fat, periosteum, subaponeurotic fat, bone.

9. What tissues are included in the scalp structure?

a. skin and subcutaneous fat;
b. skin, subcutaneous fat and epicranial aponeurosis (galea aponeurotica);
c. all soft tissues and periosteum;
d. all soft tissues of the frontoparietooccipital region and fragments of bones of the skull fornix.

10. What is the characteristic feature of hematoma of subcutaneous fat in the frontoparietooccipital region?

a. it has the form of a bump;
b. it is distributed within the limits of one bone;
c. it has diffuse character and freely moves in limits of the frontoparietooccipital region;
d. it is freely distributed into subcutaneous fat of the temporal region and region of the face.

11. What is the characteristic feature of subperiosteal hematoma in the frontoparietooccipital region?

a. it has the form of a bump;
b. it is distributed within the limits of one bone;
c. it has diffuse character and freely moves in limits of the frontoparietooccipital region;

d. it is freely distributed into subcutaneous fat of the temporal region and region of the face.

12. What is the characteristic feature of subaponeurotic hematoma in the frontoparietooccipital region?

a. it has the form of a bump;
b. it is distributed within the limits of one bone;
c. it has diffuse character and freely moves in limits of the frontoparietooccipital region;
d. it is freely distributed into subcutaneous fat of the temporal region and region of the face.

13. Enumerate the fat spaces of the frontoparietooccipital region.

a. interaponeurotic space;
b. subaponeurotic space;
c. subperiosteal space;
d. interperiosteal space.

14. The bone of the skull fornix consists of:

a. one layer;
b. two layers;
c. three layers;
d. four layer.

15. How can you explain massive hemorrhage in the lesion of the vessels of the frontoparietooccipital region?

a. fixation of vessels to fascial intersections;
b. radial direction of vessels;
c. big lumen of vessels;
d. none of these features.

16. What structures does the diploe contain?

a. arteries;
b. veins;
c. lymph vessels;
d. arteries and veins.

17. What is connected by diploic veins?

a. venous sinuses and brain veins;
b. superficial and brain veins;
c. superficial veins and venous sinuses.

18. Enumerate the layers of the temporal regions in succession.

a. skin, subcutaneous fat, galea aponeurotica, subaponeurotic fat, periosteum, subperiosteal fat, bone;

b. skin, subcutaneous fat, superficial fascia, galea aponeurotica, subaponeurotic fat, temporal muscle, periosteum, subperiosteal fat, bone;
c. skin, subcutaneous fat, superficial fascia, temporal fascia, interaponeurotic fat, subaponeurotic fat, temporal muscle, osteomuscular space, periosteum, bone.

19. How many fat spaces in the the temporal region do you know?

a. one;
b. two;
c. three;
d. four.

20. Enumerate the fat spaces of the temporal region.

a. subcutaneous fat;
b. interaponeurotic space;
c. subaponeurotic space;
d. osteomuscular space.

21. Where is the interaponeurotic fat space of the temporal region located?

a. between the superficial and deep sheets of the temporal fascia;
b. between the superficial and temporal fascia;
c. between the temporal fascia and temporal muscle;
d. between the temporal muscle and periosteum.

22. Where is the subaponeurotic fat space of the temporal region located?

a. between the superficial and deep sheets of the temporal fascia;
b. between the superficial and temporal fascia;
c. between the temporal fascia and temporal muscle;
d. between the temporal muscle and periosteum.

23. What vessel passes in subcutaneous tissue of the temporal region?

a. superficial temporal artery;
b. medial temporal artery;
c. deep temporal artery;
d. occipital artery.

24. For what is the scheme cranio-cerebral topography of Kronlein used?

a. to determine projections of the trunk and branches of the middle meningeal artery;
b. to determine projections of sulcuses of the brain;
c. to determine projections of gyruses of the brain;
d. to determine projection of the cecum foramen.

25. How is the anterior vertical line of Kronlein scheme drawn?

a. through the upper edge of the eye-pit;

b. through the lower edge of the eye-pit, zygomatic arch, upper edge of external acoustic meatus;
c. through the middle of zygomatic arch;
d. through the middle of the head of mandible;
e. through the posterior edge of the base of mastoid process.

26. How is the inferior horizontal line of Kronlein scheme drawn?

a. through the upper edge of the eye-pit;
b. through the lower edge of the eye-pit, zygomatic arch, upper edge of external acoustic meatus;
c. through the middle of zygomatic arch;
d. through the middle of the head of mandible;
e. through the posterior edge of the base of mastoid process.

27. Where is the trunk of the middle meningeal artery determined on the scheme of Kronlein?

a. on crossing of anterior vertical and superior horizontal lines;
b. on crossing of anterior vertical and inferior horizontal lines;
c. on crossing of posterior vertical and superior horizontal lines;
d. on crossing of median vertical and superior horizontal lines;
e. on crossing of median vertical and inferior horizontal lines.

28. Where is the anterior branch of the middle meningeal artery determined on the scheme of Kronlein?

a. on crossing of anterior vertical and superior horizontal lines;
b. on crossing of anterior vertical and inferior horizontal lines;
c. on crossing of posterior vertical and superior horizontal lines;
d. on crossing of median vertical and superior horizontal lines;
e. on crossing of median vertical and inferior horizontal lines.

29. Where is the posterior branch of the middle meningeal artery determined on the scheme of Kronlein?

a. on crossing of anterior vertical and superior horizontal lines;
b. on crossing of anterior vertical and inferior horizontal lines;
c. on crossing of posterior vertical and superior horizontal lines;
d. on crossing of median vertical and superior horizontal lines;
e. on crossing of median vertical and inferior horizontal lines.

30. What are the borders of the Chipault triangle?

a. external edge of acustic duct;
b. prolongation of the upper edge of zygomatic arch;
c. upper nuchal line;
d. lower nuchal line;
e. mastoid crest.

31. What passes through spinous foramen?

a. facial nerve;
b. mandibular nerve;
c. internal jugular vein;
d. maxillar nerve;
e. middle meningeal artery.

32. What does the foramen rotundum transmit?

a. facial nerve;
b. mandibular nerve;
c. internal jugular vein;
d. maxillar nerve;
e. middle meningeal artery.

33. What does the foramen ovale transmit?

a. facial nerve;
b. mandibular nerve;
c. internal jugular vein;
d. maxillar nerve;
e. middle meningeal artery.

34. What passes through the foramen lacerum?

a. facial nerve;
b. mandibular nerve;
c. internal jugular vein;
d. maxillar nerve;
e. middle meningeal artery.

35. What spaces do cranial meninges form?

a. epidural space;
b. subdural space;
c. epiarachnoid space;
d. subarachnoid space.

36. What does subarachnoid space contain?

a. venous blood;
b. arterial blood;
c. lymph;
d. liquor.

37. What does venous sinuses contain?

a. venous blood;
b. arterial blood;
c. lymph;
d. liquor.

38. Where is the middle meningeal artery located?

a. in epidural space;
b. in subdural space;
c. in epiarachnoid space;
d. in subaponeurotic space.

39. What are the features of basic neurovascular fascicles of the head?

a. fascicles go radialy to the crown of the head;
b. fascicles are located in subcutaneous fat;
c. fascicles are fixed to fascial intersections;
d. well developed arterial network.

40. How does the border between head and neck pass?

a. through mental protuberance, lower jaw, external acoustic meatus, mastoid process, the upper nuchal line, external occipital tuber;
b. through nose bridge, upper edge of eye-pit, zygomatic arch, external acoustic meatus;
c. through angle of mouth, zygomatic arch, external acoustic meatus;
d. through nose bridge, wing of nose, upper edge of eye-pit, zygomatic arch, external acoustic meatus.

41. By what nerves is the skin of the face supplied?

a. vagus nerve;
b. facial nerve;
c. trigeminal nerve;
d. greater occipital nerve;
e. great auricular nerve.

42. By what arteries is the skin of the face supplied?

a. occipital artery;
b. ophthalmic artery;
c. superficial temporal artery;
d. d)facial artery;
e. e) maxillary artery.

43. Where are the superficial mimic muscles of the face located?

a. in skin;
b. in subcutaneous fat;
c. under superficial fascia;
d. under deep fascia.

44. The mimic muscles attached to:

a. the skin;
b. the superficial fascia;
c. the deep fascia.

45. By what nerve are all the mimic muscles of the face supplied?

a. vagus nerve;
b. facial nerve;
c. trigeminal nerve;
d. greater occipital nerve;
e. great auricular nerve.

46. What are the processes of fat lump of the cheek?

a. orbital process;
b. pharyngeal process;
c. temporal process;
d. pterygopalatine process.

47. By what means is the capsule of the parotid gland formed?

a. superficial fascia;
b. buccopharyngeal fascia;
c. parotidomasseteric fascia;
d. second fascia of the neck.

48. Where is projection of excretory duct of the paritid gland located?

a. on the middle of a body of the bottom jaw;
b. from the base of ear hircus up to a corner of the mouth;
c. from external acoustic meatus up to middle of distance between a wing of nose and corner of the mouth;
d. from the base of ear hircus up to a wing of nose;
e. from a corner of the jaw to a corner of the mouth.

49. Name the structures which pass through the parotid gland.

a. facial nerve;
b. external carotid artery;
c. retromandible vein;
d. facial artery;
e. auriculotemporal nerve.

50. Where are the weak places of the capsule of the parotid gland located?

a. upper part of the gland;
b. orbital process;
c. pharyngeal process;
d. temporal process;
e. pterygopalatine process.

51. Into what branches is the facial nerve divided?

a. temporal branch;
b. orbital branch;
c. zygomatic branch;

d. buccal branch;
e. marginal branch of the lower jaw;
f. cervical branch.

52. The deep region of the face is divided into:
a. interpterygoid space;
b. pterygotemporal space;
c. pterigooccipital space;
d. interfrontooccipital space.

53. The interpterygoid space is situated between:
a. medial pterygoid muscle;
b. lateral pterygoid muscle;
c. temporal muscle;
d. branch of the lower jaw;
e. maxillary tuber;
f. articular process of the lower jaw;
g. infratemporal surface of the sphenoid bone.

54. The pterygotemporal space is situated between:
a. medial pterygoid muscle;
b. lateral pterygoid muscle;
c. temporal muscle;
d. branch of the lower jaw;
e. maxillary tuber;
f. articular process of the lower jaw;
g. infratemporal surface of the sphenoid bone.

55. What structures are located in the pterygotemporal space?
a. facial nerve;
b. retromandibular vein;
c. maxillary artery;
d. pterygoid venous plexus;
e. branches of mandible nerve.

56. What structures are located in the interpterygoid space?
a. facial nerve;
b. retromandibular vein;
c. maxillary artery;
d. pterygoid venous plexus;
e. branches of mandible nerve.

57. Into what vein does blood from facial department of the face outflow?
a. external jugular vein;
b. internal jugular vein;

c. anterior jugular vein;
d. inferior cava vein.

58. Facial vein has anastomoses with:
a. superior orbital vein;
b. inferior orbital vein;
c. medial meningeal vein;
d. pterygoid venous plexus.

59. Pterygoid venous plexus links with:
a. facial vein;
b. retromandible vein;
c. inferioir orbital vein;
d. cavernous sinus.

60. The retropharyngeal space is located between:
a. the pharynx and prevertebral fascia;
b. the larynx and prevertebral fascia;
c. the pharynx and endocervical fascia;
d. the larynx and endocervical fascia;

61. In what direction is it necessary to make a section of soft tissues at initial surgical d-bridement of wounds of the fronto-parieto-occipital region?
a. in the longitudinal;
b. in the cross;
c. in the radial concerning the top point of the head;
d. the wound is dissected crosswisely;
e. choice of a direction has no importance.

62. 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?
a. round;
b. fusiform;
c. Z-shaped;
d. horseshoe;
e. the form has no importance.

63. What actions should be taken at the initial surgical d-bridement of the frontoparietooccipital region, if the wound large bony fragment is connected to bones of the skull fornix by periosteum?
a. such fragment should be removed;
b. such fragment should be saved;
c. fragment is saved at penetrating wound of the head;
d. fragment is saved at not penetrating wound of the head;
e. tactics depends on experience of the surgeon.

64. What ways are used for temporary arrest of bleeding from vessels of the frontoparietooccipital region soft tissues?

a. digital pressing of soft tissues to the bone;
b. putting on hemostatic forceps;
c. use of pins;
d. rubbing-in wax paste.

65. What ways are used for arrest of bleeding from diploic veins of the frontoparietooccipital region?

a. digital pressing of soft tissues to the bone;
b. putting on hemostatic forceps;
c. use of pins;
d. rubbing-in wax paste.

66. What wounds of the head are called penetrating?

a. connected with the damage of bones of the skull fornix;
b. connected with the damage of the brain substance;
c. connected with the damage of dura mater;
d. connected with the damage of pia mater;
e. are determined by gaping of a wound.

67. What bones layers of the skull fornix are more inclined to the damage in skull traumas?

a. all layers;
b. external plate;
c. internal plate;
d. diploe;
e. the rule is absent.

68. How trepanation with preserving of the fragment of the bone is called?

a. osteoplastic;
b. decompressive;
c. laminectomy;
d. single-stage;
e. double-stag.

69. What instruments should be used for separation of the bony flap at osteoplastic trepanation?

a. disk saw;
b. dissecting blade saw;
c. wire cutter;
d. Yansen's forceps;
e. Dalgren's forceps.

70. In what direction should sections be done at purulent parotiditis?

a. in any direction through the point of greatest fluctuation;
b. radialy from ear hircus taking into account the course of branches of the facial nerve;
c. vertically, 1 cm anteriorly from the ear hircus;
d. arcuate incision.

71. Where is the point of digital pressing of the facial artery located?

a. 1 cm lower than the ear hircus;
b. 0,5-1 cm inferiorly to the middle of the lower edge of the eye-pit;
c. behind the corner of the lower jaw;
d. on the middle of the body of the lower jaw at superior edge of masseter muscle;
e. 1 cm lower than the middle of zygomatic arch.

72. How are the trepanations of the skull classified?

a. osteoplastic;
b. decompressive;
c. laminectomy;
d. single-stage;
e. double-stag.

73. What is anthrotomy?

a. opening of the joint;
b. resection of the joint;
c. puncture of the joint;
d. trepanation of the mastoid process.

74. 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.

75. What complications may occur during anthrotomy?

a. penetrating into the medial cranial fossa;
b. injury of the sigmoid sinus;
c. injury of the facial nerve;
d. injury of the facial artery.

76. What are the features of operations on the face?

a. the incisions should be made according to the course of natural skin folds and wrinkles,

b. the incisions should be made taking into account the direction of the facial nerve branches;
c. the excision of tissues should be economical;
d. careful hemostasis;
e. better to use intracutaneous uninterrupted sutures with synthetic filaments;
f. subcutaneous fat and skin are sutured separately.

77. In what way skin, subcutaneous fat and glands' capsule are dissected performing operation at purulent parotiditis?

a. by the scalpel;
b. by forceps;
c. by the finger;
d. by the medical saw.

78. In what way tissues of the gland are disconnected performing operation at purulent parotiditis?

a. by the scalpel;
b. by forceps;
c. by the finger;
d. by the medical saw.

Correct answers on topic 1

1. a, b
2. b
3. a, c, d
4. a, b
5. b, d, f
6. a, c, e
7. d
8. c
9. b
10. a
11. b
12. c
13. b, c
14. c
15. a
16.b
17.c
18.c
19. d
20. a, b, c, d
21. a
22. c
23. a
24. a, b, c
25. c
26. b
27. b
28. a
29. c
30. a, b, e
31. c
32. d
33.b
34.c
35.a, b, d
36. d
37. a
38. a
39. a, b, c, d
40. a
41. b, c, e
42. b, c, d, e
43. b
44. a
45. b
46. a, c, d
47. c
48.c
49.a, b, c, e
50.a, c
51.a, c, d, e, f
52.a, b
53. a, b, d, g
54. b, c, e, f
55. c, d
56. c, d, e
57. b
58. a
59. a, b, c, d
60. a
61. c
62. b
63. b
64.a, b
65.d
66.c
67.c
68.a
69.c, e
70.b
71. d
72. a, b
73. d
74. e
75. a, b, c
76. a, b, c, d, e, f
77. a
78. b, c

Topic 2

TOPOGRAPHIC ANATOMY AND OPERATIONS ON THE NECK

1. How does the boundary between the neck and head pass?

a. through the edge and angle of the lower jaw, mastoid process, the upper nuchal line, external occipital tuber;
b. through the jugular incisure, upper edge of the clavicle, acromion, spinous process of C7 vertebra;
c. through the nose bridge, upper edge of eye-pit, zygomatic arch, external acoustic meatus;
d. through the angle of mouth, zygomatic arch, external acoustic meatus.

2. How does the boundary between the neck and chest pass?

a. through the edge and angle of the lower jaw, mastoid process, the upper nuchal line, external occipital tuber;
b. through the jugular incisure, upper edge of the clavicle, acromion, spinous process of C7 vertebra;
c. through the nose bridge, upper edge of eye-pit, zygomatic arch, external acoustic meatus;
d. through the angle of mouth, zygomatic arch, external acoustic meatus.

3. Into what part is the neck divided by frontal plane which passes through transverse processes of the cervical vertebrae?

a. anterior region;
b. superior region;
c. posterior region;
d. inferior region;
e. medial region;
f. lateral region.

4. Name the boundaries of the medial triangle of the neck.

a. sternocleidomastoid muscle;
b. trapezius muscle;
c. clavicle;
d. white line of the neck;
e. edge of the lower jaw.

5. Name the boundaries of the lateral triangle of the neck.

a. sternocleidomastoid muscle;
b. trapezius muscle;
c. clavicle;
d. white line of the neck;
e. edge of the lower jaw.

6. What triangles are located in the medial triangle of the neck?

a. omotrapezoid;
b. submandible;
c. omoclavicular;
d. submental;
e. carotid;
f. omotracheal.

7. What triangles are located in the lateral triangle of the neck?

a. omotrapezoid;
b. submandible;
c. omoclavicular;
d. submental;
e. carotid;
f. omotracheal.

8. How many fasciae are there on the neck according to Shevkunenko?

a. 1;
b. 2;
c. 3;
d. 4;
e. 5.

9. Name the functions of the fasciae of the neck.

a. protection;
b. fixation;
c. promotion of biomechanics of muscles;
d. limitatuon of fat spaces;
e. regulation of the blood inflow and outflow from the brain.

10. What does the superficial fascia contain anteriorly?

a. arcus venosus juguli;
b. sternocleidomastoid muscle;
c. trapezius muscle;
d. platysma muscle;
e. sternohyoid muscle.

11. To what is the second fascia attached?

a. anterior edge of the clavicle;
b. anterior edge of the sternum;
c. edge of the lower jaw;
d. posterior edge of the clavicle;
e. posterior edge of the sternum;
f. posterior edge of the scapula.

12. To what is the third fascia attached inferiorly?

a. anterior edge of the clavicle;
b. anterior edge of the sternum;
c. edge of the lower jaw;
d. posterior edge of the clavicle;
e. posterior edge of the sternum;
f. posterior edge of the scapula.

13. What does the third fascia surround?

a. sternocleidomastoid muscle;
b. omohyoid muscle;
c. sternohyoid muscle;
d. sternothyroid muscle;
e. thyrohyoid muscle.

14. What does the visceral layer of the endocervical fascia surround?

a. larynx;
b. thyroid gland;
c. trachea;
d. basic neurovascular fascicle.

15. What does the parietal layer of the endocervical fascia form?

a. fascial compartment for the larynx;
b. fascial compartment for the basic neurovascular fascicle;
c. fascial compartment for the thyroid gland;
d. fascial compartment for the trachea.

16. What does the prevertebral fascia cover?

a. basic neurovascular fascicle;
b. sympathetic trunk;
c. long muscles of neck;
d. vertebral column.

17. For what vessels and nerves does the prevertebral fascia form sheath?

a. subclavian artery;
b. common carotid artery;
c. external jugular vein;
d. subclavian vein;
e. brachial plexus.

18. Name the reflexogenic zones of the neck.

a. basic neurovascular fascicle;
b. carotid sinus;
c. ganglions of the sympathetic trunk;
d. external jugular vein;

e. cervical plexus;
f. brachial plexus;
g. subclavian artery and trunks of brachial plexus.

19. Where is the projection of the cervical plexus located?

a. in the middle of the clavicle;
b. between the middle and lower 1/3 of the posterior edge of the sternocleidomastoid muscle;
c. in the middle of the posterior edge of the sternocleidomastoid muscle;
d. by the upper edge of the thyroid cartilage 1 cm outside;
e. from the point in the middle of distance between the angle of lower jaw and mastoid process to sternoclavicular joint.

20. Where is the projection of the brachial plexus located?

a. in the middle of the clavicle;
b. between the middle and lower 1/3 of the posterior edge of the sternocleidomastoid muscle;
c. in the middle of the posterior edge of the sternocleidomastoid muscle;
d. by the upper edge of the thyroid cartilage 1 cm outside;
e. from the point in the middle of distance between the angle of lower jaw and mastoid process to sternoclavicular joint.

21. Where is the projection of the carotid sinus located?

a. in the middle of the clavicle;
b. between the middle and lower 1/3 of the posterior edge of the sternocleidomastoid muscle;
c. in the middle of the posterior edge of the sternocleidomastoid muscle;
d. by the upper edge of the thyroid cartilage 1 cm outside;
e. from the point in the middle of distance between the angle of lower jaw and mastoid process to sternoclavicular joint.

22. Where is the projection of the basic neurovascular fascicle located?

a. in the middle of the clavicle;
b. between the middle and lower 1/3 of the posterior edge of the sternocleidomastoid muscle;
c. in the middle of the posterior edge of the sternocleidomastoid muscle;
d. by the upper edge of the thyroid cartilage 1 cm outside;
e. from the point in the middle of distance between the angle of lower jaw and mastoid process to sternoclavicular joint.

23. Name the fat spaces of the neck.

a. closed;
b. communicating;
c. big;
d. little.

24. What fat spaces does the second fascia of the neck or superficial layer of proper fascia form?

a. suprasternal interfascial space;
b. prevertebral space;
c. fascial sac of the sternocleidomastoid muscle;
d. thyroid gland space;
e. previsceral space;
f. retrovisceral space.

25. The blind retrosternocleidomastoid sac (Gruber) is located between:

a. anterior wall of the sac of the sternocleidomastoid muscle;
b. posterior wall of the sac of the sternocleidomastoid muscle;
c. third fascia of the neck;
d. fourth fascia of the neck;
e. clavicle;
f. sternocleidomastoid muscle.

26. The previsceral space is located between:

a. third fascia of the neck;
b. visceral layer of the fourth fascia of the neck;
c. prevertebral fascia;
d. parietal layer of the fourth fascia of the neck.

27. The previsceral fat space is communicated with:

a. anterior mediastinum;
b. posterior mediastinum;
c. scapular region;
d. axillary region.

28. The retrovisceral space is communicated with:

a. anterior mediastinum;
b. posterior mediastinum;
c. scapular region;
d. axillary region.

29. The fat space of the lateral triangle is communicated with:

a. anterior mediastinum;
b. posterior mediastinum;
c. scapular region;
d. axillary region.

30. The basic neurovascular space is communicated with:

a. anterior mediastinum;
b. posterior mediastinum;

c. scapular region;
d. axillary region.

31. What does pretracheal fat space contain?

a. jugular venous arch;
b. superficial neck veins;
c. vessels of the thyroid gland;
d. anterior jugular vein;
e. sympathetic trunk.

32. Between what fasciae is the retrovisceral space located?

a. superficial fascia;
b. superficial layer of the propriate fascia;
c. deep layer of the propriate fascia;
d. parietal layer of the endocervical fascia;
e. visceral layer of the endocervical fascia;
f. prevertebral fascia.

33. Between what fasciae is the fat space of the lateral triangle located?

a. superficial fascia;
b. superficial layer of the propriate fascia;
c. deep layer of the propriate fascia;
d. parietal layer of the endocervical fascia;
e. visceral layer of the endocervical fascia;
f. prevertebral fascia.

34. Between what structures is the prevertebral fat space located?

a. vertebral bodies;
b. superficial layer of the propriate fascia;
c. deep layer of the propriate fascia;
d. parietal layer of the endocervical fascia;
e. prevertebral fascia.

35. By what is the submental triangle bounded?

a. posterior bellies of digastric muscle;
b. anterior bellies of digastric muscle;
c. hyoid bone;
d. basis of the lower jaw.

36. What does the submental triangle contain?

a. submandibular gland;
b. parotid gland;
c. lingual artery;
d. lymph nodes.

37. By what is the submandibular triangle bounded?

a. posterior belly of digastric muscle;
b. anterior belly of digastric muscle;
c. hyoid bone;
d. basis of the lower jaw.

38. What branches of the external carotid artery enter the submandibular triangle?

a. superior thyroid artery;
b. lingual artery;
c. facial artery;
d. maxillary artery.

39. By what is the omotracheal triangle bounded?

a. omohyoid muscle;
b. sternocleidomastoid muscle;
c. white line of the neck;
d. clavicle;
e. trapezoid muscle.

40. Where is the larynx located (skeletotopy)?

a. from the lower edge of C6 to the upper edge of Th5 vertebra;
b. from skull base to the lower edge of C6 vertebra;
c. from C4 to the lower edge of C6 vertebra;
d. from the lower edge of C6 to Th11 vertebra.

41. What is the skeletotopy of the esophagus?

a. from the lower edge of C6 to the upper edge of Th5 vertebra;
b. from skull base to the lower edge of C6 vertebra;
c. from C4 to the lower edge of C6 vertebra;
d. from the lower edge of C6 to Th11 vertebra.

42. What is the skeletotopy of the pharynx?

a. from the lower edge of C6 to the upper edge of Th5 vertebra;
b. from skull base to the lower edge of C6 vertebra;
c. from C4 to the lower edge of C6 vertebra;
d. from the lower edge of C6 to Th11 vertebra.

43. State the skeletotopy of the trachea.

a. from the lower edge of C6 to the upper edge of Th5 vertebra;
b. from skull base to the lower edge of C6 vertebra;
c. from C4 to the lower edge of C6 vertebra;
d. from the lower edge of C6 to Th11 vertebra.

44. By what arteries is the larynx supplied?

a. branches of the lowest thyroid artery;
b. branches of the superior thyroid artery;
c. branches of the inferior thyroid artery;
d. branches of the superior laryngeal artery;
e. branches of the inferior laryngeal artery.

45. By what nerves is the larynx supplied?

a. branches of the phrenic nerve;
b. branches of the glossopharyngeal nerve;
c. branches of the vagus nerve;
d. branches of the inferior laryngeal nerve;
e. branches of the sympathetic trunk.

46. Into what parts is the cavity of the larynx divided?

a. vestibule of the larynx;
b. ventricle of the larynx;
c. infraglottic cavity;
d. supraglottic cavity.

47. By what is the trachea supplied in the neck?

a. superior thyroid arteries;
b. inferior thyroid arteries;
c. ascending pharyngeal arteries;
d. facial artery.

48. By what nerve is the trachea supplied?

a. phrenic nerve;
b. glossopharyngeal nerve;
c. vagus nerve;
d. recurrent laryngeal nerve;
e. sympathetic trunk.

49. Name the parts of the thyroid gland.

a. two anterior lobes;
b. two lateral lobes;
c. isthmus of thyroid;
d. pyramidal process of thyroid.

50. By what muscles are the lobes of the thyroid gland covered anteriorly?

a. sternohyoid muscle;
b. sternothyroid muscle;
c. thyrohyoid muscle;
d. sternocleidomastoid muscle;
e. omohyoid muscle.

51. By what arteries is the thyroid gland supplied?

a. ascending pharyngeal arteries;
b. inferior thyroid arteries;
c. ima thyroid artery;
d. superior thyroid arteries.

52. Name the parts of the cavity of the pharynx.

a. nasopharynx;
b. oropharynx;
c. tracheopharynx;
d. laryngopharynx.

53. By what arteries is the pharynx supplied?

a. ascending pharyngeal artery;
b. ascending palatine artery;
c. descending palatine artery;
d. superior thyroid artery;
e. inferior thyroid artery.

54. Name the position of the patient in vagosympathetic blockade of the cervical plexus?

a. lateral recumbent position;
b. prone position with head rotation into opposite side from place of injection;
c. supine position with head rotation into opposite side from place of injection;
d. sitting position with head rotation into side of injection.

55. In what place is the needle inserted in vagosympathetic blockade of the cervical plexus?

a. on crossing of anterior edge of sternocleidomastoid muscle with external jugular vein;
b. on crossing of anterior edge of sternocleidomastoid muscle with internal jugular vein;
c. on crossing of posterior edge of sternocleidomastoid muscle with external jugular vein;
d. on crossing of posterior edge of sternocleidomastoid muscle with internal jugular vein.

56. Name the groups of indications for tracheostomy.

a. mechanical asphyxia;
b. weakness of breathing;
c. weakness of nasal breathing;
d. nasal bleeding.

57. Name types of the tracheostomy according to the place of section.

a. anterior;
b. posterior;
c. upper;
d. lower;
e. middle.

58. Name types of the tracheostomy according to the way of section.

a. longitudinal;
b. transverse;
c. oblique;
d. making a tracheal flap by Bjork;
e. fenestration of trachea.

59. What is the upper tracheostomy?

a. section of trachea over the thyroid cartilage;
b. section of trachea over the isthmus of thyroid gland;
c. section of trachea over the cricoid cartilage;
d. section of trachea over the hyoid bone.

60. Name the position of the patient in tracheostomy.

a. lateral recumbent position;
b. patient lies on his back with swab under shoulders;
c. patient sits throwing a little bit back his head;
d. patient sits throwing with head rotation.

61. Enumeate layers through that the midline incision in tracheostomy is made?

a. skin;
b. white line of the neck;
c. superficial fascia;
d. prevertebral fascia;
e. endocervical fascia.

62. What vessels are ligated in lower tracheostomy?

a. median vein of the neck;
b. brachiocephalic trunk;
c. arcus venosus juguli;
d. impar venous plexus of thyroid gland;
e. ima thyroid artery.

63. What vessels are ligated in upper tracheostomy?

a. median vein of the neck;
b. brachiocephalic trunk;
c. arcus venosus juguli;

d. impar venous plexus of thyroid gland;
e. ima thyroid artery.

64. Name the possible complications of tracheostomy.

a. incomplete section of tracheal wall leads to the detachment of mucous layer by cannula;
b. removal of parathyroid glands;
c. injury of back tracheal wall and esophagus;
d. injury of recurrent laryngeal nerves;
e. mediastinal emphysema.

65. Name kinds of operations on thyroid gland.

a. section;
b. enucleation of the node;
c. resection;
d. combination of resection and enucleation;
e. extirpation.

66. Why the resection of thyroid gland by Nikolaev is called subtotal subfascial?

a. ‘cause whole gland is removed;
b. ‘cause not whole gland is removed;
c. ‘cause the gland is located under the visceral layer of the 4th fascia;
d. ‘cause ligation of glands vessels is performed in space between visceral layer of the 4th fascia and own capsule of gland.

67. Name features of resection of thyroid gland by Nikolaev.

a. probability of the removal of parathyroid glands and revealing of myxedema is diminished;
b. good blood supply of the remaining parts of gland, ‘cause ligation of vessels is subfascial;
c. bleeding is minimal;
d. the risk of recurrent laryngeal nerves injury is diminished.

68. Name the possible complications of resection of thyroid gland.

a. recurrent laryngeal nerves injury;
b. removal of parathyroid glands;
c. injury of back tracheal wall and esophagus;
d. mediastinal emphysema;
e. thyreotoxic shock.

69. Name the approach for ligation of carotid arteries.

a. along the posterior edge of sternoclaidomastoid muscle;
b. on midline of the neck;

c. 2 cm up to jugular incisure of sternum;
d. along the anterior edge of sternoclaidomastoid muscle.

70. Where the place of ligation of external carotid artery located?

a. proximally from the origin of superior thyroid artery;
b. distally from the origin of superior thyroid artery;
c. 1-1.5 cm. indent from carotid bifurcation;
d. nearby carotid bifurcation.

Correct answers on topic 2

1. a
2. b
3. a, c
4. a, d, e
5. a, b, c
6. b, d, e, f
7. a, c
8. e
9. a, b, c, d, e
10. d
11. a, b, c, f
12. d, e
13. b, c, d, e
14. a, b, c
15.b
16. b, c, d
17. a, d, e
18. a, b, c, e, f, g
19. c
20. b
21. d
22.e
23.a, b
24.a, c
25.b, c, e
26.b, d
27.a
28.b
29.a, c, d
30.a, b
31.c
32.d, f
33.b, f
34.a, e
35.b, c
36.d
37.a, b, d
38.b, c
39.a, b, c
40.c
41.d
42.b
43.a
44.b, c, d, e
45.c, d, e
46.a, b, c
47.b
48.d
49.b, c, d
50.a, b, e
51.b, c, d
52.a, b, d
53.a, b, c, d, e
54.c
55.c
56.a, b
57.c, d, e
58.a, b, d, e
59.b
60.b, c
61.a, b, c, e
62.c, e
63.a
64.a, c, d, e
65.b, c, d, e
66.b, d
67.a, b, c, d
68.a, b, e
69.d
70.b

Topic 3

TOPOGRAPHIC ANATOMY AND OPERATIONS ON A CHEST

1. Enumerate the layers of fat tissue of mammary gland in succession.

a. premammary;
b. inframammary;
c. intramammary;
d. retromammary.

2. By what fascia is capsule of mammary gland formed?

a. endothoracic fascia;
b. clavipectoral fascia;
c. axillary fascia;
d. pectoral fascia;
e. superficial fascia.

3. The main way of lymphatic drainage passes from mammary gland into:

a. axillary lymph nodes;
b. lymph nodes along the internal thoracic artery and nodes of the anterior mediastinum;
c. supraclavicular lymph nodes;
d. infraclavicular lymph nodes;
e. lymph nodes of abdominal cavity.

4. The additional way of lymphatic drainage passes from mammary gland into:

a. axillary lymph nodes;
b. lymph nodes along the internal thoracic artery and nodes of the anterior mediastinum;
c. supraclavicular lymph nodes;
d. infraclavicular lymph nodes;
e. lymph nodes of abdominal cavity.

5. By what arteries is mammary gland supplied?

a. branches of internal thoracic artery;
b. branches of lateral thoracic artery;
c. branches of anterior intercostal arteries;
d. branches of posterior intercostal arteries.

6. Name the volnurable areas of the diaphragm.

a. Petit's triangle;
b. Lesgaft-Grunfeld rhomb;
c. sternocostal triangle of Morgan'i;

d. sternocostal triangle of Larey;
e. lumbarcostal triangle of Bohdalek.

7. What structures pass through esophageal opening of diaphragm?

a. aorta;
b. esophagus;
c. right vagus nerve;
d. left vagus nerve;
e. thoracic duct.

8. What structures pass through aortal opening of diaphragm?

a. aorta;
b. esophagus;
c. right vagus nerve;
d. left vagus nerve;
e. thoracic duct.

9. What structures pass between the medial and middle crura of the lumbar part of the diaphragm?

a. azygos vein;
b. hemiazygos vein;
c. sympathetic trunk;
d. splanchnic nerves.

10. What structures pass between the medial and lateral crura of the lumbar part of the diaphragm?

a. azygos vein;
b. hemiazygos vein;
c. sympathetic trunk;
d. splanchnic nerves.

11. By what arteries is diaphragm supplied?

a. pericardiacophrenic artery;
b. superior phrenic artery;
c. branches of intercostal arteries;
d. medial phrenic artery;
e. inferior phrenic artery.

12. Name the syntopy of structures of intercostal neurovascular fascicle (top-down)?

a. artery, vein, nerve;
b. vein, artery, nerve;
c. nerve, vein, artery;
d. vein, nerve, artery;
e. artery; nerve; vein.

13. What structures does the anterior mediastinum include?

a. oesophagus;
b. ductus thoracicus;
c. trachea;
d. vv. brachiocephalicae;
e. truncus sympathicus;
f. superior vena cava.

14. What structures does the posterior mediastinum include?

a. oesophagus;
b. ductus thoracicus;
c. trachea;
d. vv. brachiocephalicae;
e. truncus sympathicus;
f. superior vena cava.

15. Enumerate the parts of the lungs root in horizontal plane or from forward backward in succession.

a. vein, artery, bronchus;
b. artery, bronchus, vein;
c. bronchus, artery, vein;
d. vein, bronchus, artery.

16. Enumerate the parts of the right lung root in vertical plane in succession.

a. vein, artery, bronchus;
b. artery, bronchus, vein;
c. bronchus, artery, vein;
d. vein, bronchus, artery.

17. How many segments does the right lung include?

a. 8;
b. 9;
c. 10;
d. 11.

18.Name the parts of parietal pleura of the chest.

a. abdominal;
b. costal;
c. diaphragmatic;
d. mediastinal.

19. Name the recesses of the pleural cavity.

a. costodiaphragmatic;
b. costomediastinal;

c. costoabdominal;
d. phrenicomediastinal.

20. Name the classification of the suppurative mastitis.
a. premammary;
b. supramammary;
c. intramammary;
d. retromammary.

21. What incision is used for treatment of intramammary breast abscesses?
a. arched incision along the underbreast fold;
b. radial incision;
c. paraareolar incision;
d. transverse incision.

22. What incision is used for treatment of premammary breast abscesses?
a. arched incision along the underbreast fold;
b. radial incision;
c. paraareolar incision;
d. transverse incision.

23. 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.

24. What structures are removed in radical mastectomy?
a. mammary gland;
b. axillary lymph nodes;
c. parasternal lymph nodes;
d. sector of mammary gland;
e. pectoral muscles.

25. What structures are removed in an extended sectoral resection of the mammary gland?
a. mammary gland;
b. axillary lymph nodes;
c. parasternal lymph nodes;
d. sector of mammary gland;
e. pectoral muscles.

26. What structures are removed in simple mastectomy?
a. mammary gland;
b. axillary lymph nodes;

c. parasternal lymph nodes;
d. sector of mammary gland;
e. pectoral muscles.

27. What structures are removed in extended radical mastectomy?

a. mammary gland;
b. axillary lymph nodes;
c. parasternal lymph nodes;
d. sector of mammary gland;
e. pectoral muscles.

28. Name the classification of the rib resection.

a. aperiostal;
b. supraperiostal;
c. transperiostal;
d. subperiostal.

29. Name the classification of the pneumothorax.

a. closed;
b. open;
c. valvate;
d. tense.

30. What is the firs medical assistance at treatment of the pneumothorax?

a. treatment of the pleuropulmonary shock;
b. active or passive drainage;
c. pleurocentesis in cases of considerable air accumulating with risk of patients death;
d. tight wound closure.

31. 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.

32. State the place of pleural puncture for removing of air.

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.

33. What complications may occur in pleural puncture?

a. injury of esophagus;
b. injury of intercostal neurovascular fascicle;
c. injury of lungs, diaphragma, liver, spleen;
d. collapse;
e. pneumothorax.

34. What does the prophylaxis of pneumothorax in pleural puncture include?

a. puncture with "closed" needle;
b. puncture with «unclosed» needle;
c. evacuation of fluid by portions of 10-20 ml and no more than 1 liter at once;
d. rapid evacuation of fluid.

35. What groups of incisions are used in the organs of the thoracic cavity?

a. wide intercostal incisions;
b. claviculatomy;
c. sternotomy;
d. anterolateral approach;
e. posterolateral approach.

36. Enumerate in succession the parts of the root processing (ligation of structures) at pulmonectomy in case of tuberculosis.

a. vein, artery, bronchus;
b. artery, bronchus, vein;
c. bronchus, artery, vein;
d. vein, bronchus, artery;
e. artery, vein, bronchus.

37. Enumerate in succession the parts of the root processing (ligation of structures) at pulmonectomy in case of cancer.

a. vein, artery, bronchus;
b. artery, bronchus, vein;
c. bronchus, artery, vein;
d. vein, bronchus, artery;
e. artery, vein, bronchus.

38. In what area is the puncture of pericardium or paracentesis made?

a. in the corner between the place of attachment of the left 7-th rib to sternum;
b. in the corner between the place of attachment of the right 7-th rib to sternum;
c. in the corner between the place of attachment of the left 4-th rib to sternum;
d. under the xiphoid process on median anterior line.

39. Name the classification of nonpenetrating wounds of the heart.

a. isolated wounds of endocardium;

b. isolated wounds of myocardium;
c. wounds of coronary vessels;
d. combined wounds of myocardium and coronary vessels.

40. Name the rules of operations on the heart.

a. approach is made by the course of wound canal;
b. revision of the opposite heart wall;
c. tight closure of pericardium wound;
d. loose closure of pericardium wound;
e. wound of heart is closed by interrupted sutures with synthetic atraumatic material;
f. endocardium is not sutured.

Correct answers on topic 3

1. a, c, d
2. e
3. a
4. b, c, d, e
5. a, b, c, d
6. c, d, e
7. b, c, d
8. a, e
9. a, b, d
10.c
11.a, b, c, e
12.b
13.c, d, f
14.a, b, e
15.a
16.c
17.c
18.b, c, d
19.a, b, d
20.a, c, d
21.b
22.b, c
23.a
24.a, b, c
25.b, d
26.a, b
27.a, b, c, e
28.c, d
29.a, b, c, d
30.a, c
31.d
32.b
33.b, c, d, e
34.a
35.a, c, d, e
36.e
37.a
38.a, d
39.b, c, d
40.a, b, d, e, f

Topic 4

TOPOGRAPHIC ANATOMY OF FRONT ABDOMINAL WALL. SURGERY OF HERNIAS

1. Into what areas is the anterior abdominal wall divided by the horizontal lines?
a. epigastrium;
b. mesogastrium;
c. umbilical region;
d. hypogastrium.

2. What is named "Tomson's fascia" (plate)?
a. superficial layer of superficial fascia;
b. deep layer of superficial fascia;
c. proper (deep) fascia;
d. endoabdominal fascia.

3. The linea alba is formed by:
a. interlacing of aponeuroses of three pairs of abdominal muscles;
b. aponeuroses of external oblique muscles;
c. aponeuroses of internal oblique muscles;
d. aponeuroses of transverse muscles.

4. The posterior layer of the rectus sheath is formed beneath the umbilicus by:
a. aponeurosis of external oblique muscle;
b. aponeurosis of internal oblique muscle;
c. aponeurosis of transverse muscle;
d. transverse fascia.

5. The posterior layer of the rectus sheath is formed above the umbilicus by:
a. aponeurosis of external oblique muscle;
b. aponeurosis of internal oblique muscle;
c. aponeurosis of transverse muscle;
d. transverse fascia.

6. The anterior wall of the rectus sheath is formed above umbilicus by:
a. aponeurosis of external oblique muscle;
b. aponeurosis of internal oblique muscle;
c. aponeurosis of transverse muscle;
d. transverse fascia.

7. The anterior layer of the rectus sheath is formed beneath the umbilicus by:
a. aponeurosis of external oblique muscle;

b. aponeurosis of internal oblique muscle;
c. aponeurosis of transverse muscle;
d. transverse fascia.

8. Name the muscles between which intercostal nerves are located in the lateral part of the abdominal wall?

a. external oblique muscle;
b. internal oblique muscle;
c. transverse muscle;
d. rectus muscle.

9. What branches of the femoral artery pass through the subcutaneous fat of the anterior abdominal wall?

a. superior epigastric artery;
b. superficial epigastric artery;
c. inferior epigastric artery;
d. superficial circumflex artery of iliac bone;
e. external pudendal artery.

10. What large arteries pass along the posterior surface of the rectus abdominis?

a. superior epigastric artery;
b. superficial epigastric artery;
c. inferior epigastric artery;
d. superficial circumflex artery of iliac bone;
e. external pudendal artery.

11. Between the systems of what arteries do superior and inferior epigastric arteries have anastomoses?

a. internal thoracic artery;
b. lateral thoracic artery;
c. internal iliac artery;
d. external iliac artery.

12. What main superficial veins pass in the subcutaneous fat of the anterior abdominal wall?

a. superior epigastric vein;
b. thoracoepigastric vein;
c. inferior epigastric vein;
d. superficial epigastric vein.

13. By what nerves is the anterior abdominal wall supplied?

a. VII-XII intercostal nerves;
b. IV-IX intercostal nerves;
c. iliohypogastric nerve;

d. genitofemoral nerve;
e. ilioinguinal nerve.

14. How many folds does parietal peritoneum form on the inferior part of the anterior abdominal wall?

a. 3;
b. 4;
c. 5;
d. 6.

15. Name the folds of the peritoneum between which supravesical fossa is located?

a. between median and medial umbilical folds;
b. between medial and lateral umbilical folds;
c. laterally to lateral umbilical fold;
d. between median and lateral umbilical folds.

16. The lateral umbilical fold of peritoneum is formed by:

a. urachus;
b. inferior epigastric vessels;
c. umbilical vein;
d. umbilical arteries.

17. The medial umbilical fold of peritoneum is formed by:

a. urachus;
b. inferior epigastric vessels;
c. umbilical vein;
d. umbilical arteries.

18. What is located laterally to lateral umbilical folds?

a. supravesical fossa;
b. femoral fossa;
c. lateral inguinal fossa;
d. medial inguinal fossa.

19. Enumerate the layers in the region of umbilicus in succession:

a. skin;
b. subcutaneous fat;
c. deep fascia;
d. transverse fascia;
e. peritoneum.

20. What passes through the umbilical ring in the fetus?

a. inferior epigastric vessels;
b. umbilical vein;

c. umbilical arteries;
d. urachus;
e. vitelline duct.

21. Name anatomic features which can lead to formation of umbilical hernias.
a. increase of ring diameter;
b. hypoplasia of deep fascia;
c. not the whole ring is covered with transverse fascia;
d. peritoneal diverticulum in the umbilical region.

22. What structures are located in the inguinal canal in males?
a. spermatic cord;
b. genital branch of genitofemoral nerve;
c. femoral branch of genitofemoral nerve;
d. ilioinguinal nerve;
e. iliohypogastric nerve;
f. round ligament of uterus.

23. What structures are located in the inguinal canal in females?
a. spermatic cord;
b. genital branch of genitofemoral nerve;
c. femoral branch of genitofemoral nerve;
d. ilioinguinal nerve;
e. iliohypogastric nerve;
f. round ligament of uterus.

24. What does spermatic cord include?
a. deferent duct;
b. scrotal artery;
c. testicular artery;
d. testicular vein;
e. cremasteric artery;
f. artery of ductus deferens.

25. By what is the inguinal triangle bounded?
a. horizontal line from the point between external and middle 1/3 of inguinal fold;
b. external edge of rectus muscle;
c. external edge of transverse muscle;
d. inguinal fold.

26. The inferior wall of the inguinal canal is formed by:
a. external oblique muscle aponeurosis;
b. transverse fascia;

c. lower edges of internal oblique and transverse muscles;
d. inguinal ligament.

27. The anterior wall of the inguinal canal is formed by:
a. external oblique muscle aponeurosis;
b. transverse fascia;
c. lower edges of internal oblique and transverse muscles;
d. inguinal ligament.

28. The superior wall of the inguinal canal is formed by:
a. external oblique muscle aponeurosis;
b. transverse fascia;
c. lower edges of internal oblique and transverse muscles;
d. inguinal ligament.

29. On what does the superficial ring of the inguinal canal project on the internal surface of abdominal wall?
a. supravesical fossa;
b. femoral fossa;
c. lateral inguinal fossa;
d. medial inguinal fossa.

30. The superficial ring of the inguinal canal is formed by:
a. by divarication of internal oblique muscle aponeurosis onto lateral and medial limbs;
b. by divarication of external oblique muscle aponeurosis onto lateral and medial limbs;
c. by saphenous opening;
d. by hole in endoabdominal fascia.

31. On what does the deep ring of the inguinal canal project on the internal surface of abdominal wall?
a. supravesical fossa;
b. femoral fossa;
c. lateral inguinal fossa;
d. medial inguinal fossa.

32. What kind of hernia protrudes through the medial inguinal fossa?
a. direct inguinal hernia;
b. oblique inguinal hernia;
c. femoral hernia;
d. umbilical hernia.

33. What kind of hernia protrudes through the lateral inguinal fossa?
a. direct inguinal hernia;

b. oblique inguinal hernia;
c. femoral hernia;
d. umbilical hernia.

34. Where is hernial sac located in oblique inguinal hernia regarding to spermatic cord and inferior epigastric vessels?
a. inside tunics of spermatic cord;
b. out of tunics of spermatic cord;
c. laterally to inferior epigastric vessels;
d. medially to inferior epigastric vessels.

35. Where is hernial sac located in direct inguinal hernia regarding to spermatic cord and inferior epigastric vessels?
a. inside tunics of spermatic cord;
b. out of tunics of spermatic cord;
c. laterally to inferior epigastric vessels;
d. medially to inferior epigastric vessels.

36. The muscular lacune is limited by:
a. iliopectineal arch;
b. lacunar ligament;
c. inguinal ligament;
d. pectineal ligament;
e. caxal bone.

37. The vascular lacune is limited by:
a. iliopectineal arch;
b. lacunar ligament;
c. inguinal ligament;
d. pectineal ligament;
e. caxal bone.

38. What passes through the vascular lacuna?
a. femoral artery;
b. femoral nerve;
c. femoral vein;
d. lateral cutaneous nerve of thigh;
e. iliopsoas muscle.

39. What does the muscular lacuna contain?
a. femoral artery;
b. femoral nerve;
c. femoral vein;
d. lateral cutaneous nerve of thigh;
e. iliopsoas muscle.

40. On what does the femoral ring project on the posterior surface of the abdominal wall?

a. supravesical fossa;
b. femoral fossa;
c. lateral inguinal fossa;
d. medial inguinal fossa.

41. The deep femoral ring is limited by:

a. iliopectineal arch;
b. lacunar ligament;
c. inguinal ligament;
d. pectineal ligament;
e. femoral vein.

42. The superficial ring of the femoral canal is formed by:

a. divarication of internal oblique muscle aponeurosis onto lateral and medial limbs;
b. divarication of external oblique muscle aponeurosis onto lateral and medial limbs;
c. saphenous opening;
d. hole in endoabdominal fascia.

43. The femoral canal is limited by:

a. femoral vein;
b. femoral artery;
c. superficial layer of femoral fascia;
d. deep layer of femoral fascia;
e. inguinal ligament.

44. What is the average length of femoral canal in women?

a. 0.5-1 cm;
b. 1-3 cm;
c. 3-5 cm;
d. 5-10 cm.

45. State the parts of hernia.

a. hernial gates;
b. hernial sack;
c. hernial body;
d. hernial contents.

46. What is hernial gates?

a. defect in abdominal wall, through which organs go out from abdominal cavity;
b. parietal peritoneum;

c. organ of abdominal cavity;
d. part of hernial sack.

47. Name parts of hernial sac.
a. neck;
b. gates;
c. body;
d. bottom;

48. Give the definition of sliding hernia.
a. hernia which slides from abdominal cavity into hernial sack;
b. in such hernias mesoperitoneal organ is a part of hernial sack;
c. in such hernias intraperitoneal organ is a part of hernial sack;
d. in such hernias extraperitoneal organ is a part of hernial sack.

49. Name initiating factors of herniation.
a. elderly age;
b. young age;
c. sudden increase of intra-abdominal pressure;
d. weak places of abdominal wall.

50. What is an urgent indication for herniotomy?
a. reducible hernia;
b. irreducible hernia;
c. strangulated hernia;
d. congenital hernia.

51. Name main stages of herniotomy.
a. resection of hernial contents;
b. approach to hernial gates and hernial sack;
c. processing and removal (cutting off) of hernial sack;
d. hernioplastics.

52. What must you do with hernial contents after opening the nernial sac?
a. make resection of hernial contents;
b. put hernial contents into abdominal cavity;
c. make excision of hernial sack;
d. make revision of hernial sack's contents.

53. Name the ways of hernioplastics.
a. simple ways;
b. reconstructive ways;
c. plastic ways;
d. complicated ways.

54. What wall of the inguinal canal is strengthened in oblique inguinal hernia?

a. anterior;
b. superior;
c. posterior;
d. inferior.

55. What anatomical structures are stitched to the inguinal ligament in repair on Girard method by first row of sutures?

a. lower edge of internal oblique muscle;
b. lower flap of external oblique muscle aponeurosis;
c. lower edge of transverse muscle;
d. upper flap of external oblique muscle aponeurosis.

56. What anatomical structures are stitched to the inguinal ligament in repair on Girard method by second row of sutures?

a. lower edge of internal oblique muscle;
b. lower flap of external oblique muscle aponeurosis;
c. lower edge of transverse muscle;
d. upper flap of external oblique muscle aponeurosis.

57. Name the shortcomings of the Girard method.

a. incarceration of spermatic cord;
b. separation of fibres of inguinal ligament;
c. myorrhexis;
d. suturing of heterogeneous tissues.

58. What anatomical structures are stitched in repair of the inguinal canal according to Girard-Spasokukotsky method by first row of sutures?

a. lower edges of internal oblique and transverse muscles with inguinal ligament;
b. upper flap of external oblique muscle aponeurosis with inguinal ligament;
c. lower edges of internal oblique and transverse muscles and upper flap of external oblique muscle aponeurosis with inguinal ligament;
d. lower flap with upper flap forming double-flap of external oblique muscle aponeurosis.

59. What anatomical structures are stitched in repair of the inguinal canal according to Girard-Spasokukotsky method by second row of sutures?

a. lower edges of internal oblique and transverse muscles with inguinal ligament;
b. upper flap of external oblique muscle aponeurosis with inguinal ligament;
c. lower edges of internal oblique and transverse muscles and upper flap of external oblique muscle aponeurosis with inguinal ligament;

d. lower flap with upper flap forming double-flap of external oblique muscle aponeurosis.

60. What does the advantage of Kimbarovsky suture consist of?

a. suturing of homogeneous tissues;
b. prevention of separation of fibres of inguinal ligament;
c. strength of sutures;
d. suturing of heterogeneous tissues.

61. For what is Martinov's method used?

a. for strengthening of anterior wall of inguinal canal;
b. for strengthening of superior wall of inguinal canal;
c. for strengthening of posterior wall of inguinal canal;
d. for strengthening of inferior wall of inguinal canal.

62. What anatomical structures are stitched in repair of the inguinal canal according to Martinov's method by first row of sutures?

a. lower edges of internal oblique and transverse muscles with inguinal ligament;
b. upper flap of external oblique muscle aponeurosis with inguinal ligament;
c. lower edges of internal oblique and transverse muscles and upper flap of external oblique muscle aponeurosis with inguinal ligament;
d. lower flap with upper flap forming double-flap of external oblique muscle aponeurosis.

63. What anatomical structures are stitched in repair of the inguinal canal according to Martinov's method by second row of sutures?

a. lower edges of internal oblique and transverse muscles with inguinal ligament;
b. upper flap of external oblique muscle aponeurosis with inguinal ligament;
c. lower edges of internal oblique and transverse muscles and upper flap of external oblique muscle aponeurosis with inguinal ligament;
d. lower flap with upper flap forming double-flap of external oblique muscle aponeurosis.

64. What wall of the inguinal canal is strengthened in the direct inguinal hernia?

a. anterior;
b. superior;
c. posterior;
d. inferior.

65. Name methods of treatment of direct inguinal hernia.

a. Girard-Spasokukotsky's method;
b. Bassini method;

c. Kukudganov's method;
d. Martinov's method.

66. What is stitched to inguinal ligament posterior to spermatic cord in repair of the inguinal canal according to Bassini method?
a. lower edge of internal oblique muscle;
b. lower flap of external oblique muscle aponeurosis;
c. lower edge of transverse muscle;
d. upper flap of external oblique muscle aponeurosis;
e. transverse fascia.

67. What anatomical structures are stitched anterior to spermatic cord in repair of the inguinal canal according to Bassini method?
a. lower edges of internal oblique and transverse muscles with inguinal ligament;
b. upper flap of external oblique muscle aponeurosis with inguinal ligament;
c. lower edges of internal oblique and transverse muscles and upper flap of external oblique muscle aponeurosis with inguinal ligament;
d. lower flap with upper flap forming double-flap of external oblique muscle aponeurosis;
e. lower flap with upper flap of external oblique muscle aponeurosis.

68. What kind of inguinal hernia does congenital hernia correspond to?
a. direct;
b. oblique;
c. may be direct or oblique;
d. all answers are not correct.

69. What wall of the inguinal canal is strengthened in congenital inguinal hernia?
a. anterior;
b. superior;
c. posterior;
d. inferior.

70. What groups of methods of herniotomy in femoral hernia do you know?
a. femoral;
b. abdominal;
c. inguinal;
d. perineal.

71. What anatomical structures are stitched for closure of the femoral canal according to Bassini?
a. lower edges of internal oblique and transverse muscles with pectineal ligament;

b. lower edges of internal oblique and transverse muscles with inguinal ligament;
c. inguinal ligament with pectineal ligament through femoral approach;
d. inguinal ligament with pectineal ligament through inguinal approach.

72. What anatomical structures are stitched for closure of the femoral canal according to Rudjy?

a. lower edges of internal oblique and transverse muscles with pectineal ligament;
b. lower edges of internal oblique and transverse muscles with inguinal ligament;
c. inguinal ligament with pectineal ligament through femoral approach;
d. inguinal ligament with pectineal ligament through inguinal approach.

73. What anatomical structures are stitched in closure of the deep femoral ring according to Rudjy-Parlovecho method by first row of sutures?

a. lower edges of internal oblique and transverse muscles with pectineal ligament;
b. lower edges of internal oblique and transverse muscles with inguinal ligament;
c. inguinal ligament with pectineal ligament through femoral approach;
d. inguinal ligament with pectineal ligament through inguinal approach.

74. What anatomical structures are stitched in closure of the deep femoral ring according to Rudjy-Parlovecho method by second row of sutures?

a. lower edges of internal oblique and transverse muscles with pectineal ligament;
b. lower edges of internal oblique and transverse muscles with inguinal ligament;
c. inguinal ligament with pectineal ligament through femoral approach;
d. inguinal ligament with pectineal ligament through inguinal approach.

75. Enumerate nerves which are necessary identified and safeguarded in herniotomy in inguinal hernia.

a. ilioinguinal nerve;
b. iliohypogastric nerve;
c. pudendal nerve;
d. genital branch of genitofemoral nerve.

76. **Name kind of sutures which are used in herniotomy according to Lekser in first row of sutures**.

a. П-shaped sutures;
b. Z-shaped sutures;
c. purse-string suture;
d. interrupted sutures.

77. In which hernia is Mayo's operation used?

a. inguinal;
b. femoral;
c. umbilical;
d. perineal.

78. The strengthening of the abdominal wall on Mayo's operation is reached by:

a. double-flap formation with inferior and superior flaps of aponeurosis;
b. double-flap formation with right and left flaps of aponeurosis;
c. synthetic grafts;
d. autodermal flaps.

79. What kind of suture is used for first row of sutures in repair of abdominal wall according to Mayo's operation?

a. П-shaped sutures;
b. Z-shaped sutures;
c. purse-string suture;
d. interrupted sutures.

80. How is the strengthening of the anterior abdominal wall reached according to Sapeshko?

a. by double-flap formation with inferior and superior flaps of aponeurosis;
b. by double-flap formation with right and left flaps of aponeurosis;
c. by synthetic grafts;
d. by autodermal flaps.

81. Name variants of incarceration.

a. parietal;
b. visceral;
c. antegrade;
d. retrograde.

82. Name the most important stage of herniotomy in strangulated hernias.

a. opening of hernial sack;
b. fixing of hernial contents;
c. revision of hernial contents and estimation its viability;
d. section of incarcerating ring.

83. In what direction is section of incarcerating ring made in direct inguinal hernia?

a. in lateral direction;
b. in medial direction;
c. downwards;
d. upwards.

84. In what direction is section of incarcerating ring made in oblique inguinal hernia?

a. downwards;
b. in medial direction;
c. laterally and upwards;
d. laterally and downwards.

85. In what direction is section of incarcerating ring made in femoral hernia?

a. in lateral direction;
b. in medial direction;
c. downwards;
d. upwards.

Correct answers on topic 4

1. a, b, d
2. b
3. a
4. d
5. b, c, d
6. a, b
7. a, b, c
8. b, c
9. b, d, e
10.a, c
11.a, d
12.b, d
13.a, c, e
14.c
15.a
16.b
17.d
18.c
19.a, d, e
20.b, c, d, e
21.a, c, d
22.a, b, d
23.b, d, f
24.a, c d, e, f
25.a, b, d
26.d
27.a
28.c
29.d
30.b
31.c
32.a
33.b
34.a, c
35.b, d
36.a, c, e
37.a, b, c, d
38.a, c
39.b, d, e
40.b
41.b, c, d, e
42.c
43.a, c, d
44.b
45.a, b, d
46.a
47.a, c, d
48.b
49.c, d
50.c
51.b, c, d
52.d
53.a, b, c
54.a
55.a, c
56.d
57.b, d
58.c
59.d
60.a, b
61.a
62.b
63.d
64.c
65.b, c
66.a, c, e
67.e
68.b
69.a
70.a, c
71.c
72.d
73.a
74.b
75.a, d
76.c
77.c
78.a
79.a
80.b
81.a, c, d
82.d
83.d
84.c
85.b

Topic 5

TOPOGRAPHIC ANATOMY AND OPERATIONS ON ORGANS OF UPPER COMPARTMENT OF ABDOMINAL CAVITY

1. Into what compartments is the abdominal cavity divided?
a. upper;
b. lower;
c. anterior;
d. posterior.

2. The abdominal cavity is divided into upper and lower compartments (floors) by:
a. small intestine and its mesentery;
b. transverse colon and transverse mesocolon;
c. terminal line;
d. duodenum.

3. What organs does the upper compartment of the abdominal cavity include?
a. liver;
b. gallbladder;
c. spleen;
d. small and large intestine;
e. stomach.

4. By what is the right hepatic bursa limited on the left?
a. by coronary ligament;
b. by hepatoduodenal ligament;
c. falciform ligament of liver;
d. triangular ligament of liver.

5. Name anterior wall of the omental bursa.
a. transverse mesocolon;
b. diaphragm;
c. lesser omentum;
d. posterior wall of stomach;
e. gastrocolic ligament.

6. By what is the left hepatic bursa limited posteriorly?
a. by coronary ligament;
b. by diaphragm;
c. falciform ligament of liver;
d. triangular ligament of liver.

7. Name the anterior wall of the pregastric bursa.

a. transverse mesocolon;
b. front abdominal wall;
c. lesser omentum;
d. posterior wall of stomach;
e. gastrocolic ligament.

8. By what is the epiploic foramen limited anteriorly?

a. caudate process of liver;
b. hepatorenal ligament;
c. duodenorenal ligament;
d. hepatoduodenal ligament.

9. By what is the left subphrenic space separated from left lateral canal?

a. gastrophrenic ligament;
b. gastrolienal ligament;
c. phrenicocolic ligament;
d. hepatoduodenal ligament.

10. What ligaments form the lesser omentum?

a. hepatophrenic ligament;
b. hepatogastric ligament;
c. hepatorenal ligament;
d. hepatoduodenal ligament;
e. gastrophrenic ligament.

11. What structures does the hepatoduodenal ligament contain?

a. common bile duct;
b. hepatic artery;
c. hepatic vein;
d. portal vein.

12. Name the syntopy of structures of the hepatoduodenal ligament from right to left.

a. common bile duct, hepatic artery, portal vein;
b. common bile duct, portal vein, hepatic artery;
c. hepatic artery, common bile duct, portal vein;
d. portal vein, hepatic artery, common bile duct.

13. Name features of peritoneum.

a. moisture;
b. fixation;
c. shine;
d. protection;

e. adhesion;
f. absorbation.

14. In what regions is the greater part of the stomach located?
a. right hypochondrium;
b. left hypochondrium;
c. umbilical region;
d. proper epigastric region.

15. State peritoneal coverage of stomach.
a. mesoperitoneal;
b. intraperitoneal;
c. extraperitoneal;
d. retroperitoneal.

16. Name the superficial ligaments of the stomach.
a. gastrocolic ligament;
b. gastrolienal ligament;
c. gastropancreatic ligament;
d. pyloropancreatic ligament;
e. gastrophrenic ligament;
f. hepatogastric ligament.

17. Name the deep ligaments of the stomach.
a. gastrocolic ligament;
b. gastrolienal ligament;
c. gastropancreatic ligament;
d. pyloropancreatic ligament;
e. gastrophrenic ligament;
f. hepatogastric ligament.

18. What arteries are located on lesser stomach curvature?
a. left gastric artery;
b. left gastroepiploic artery;
c. right gastroepiploic artery;
d. right gastric artery.

19. What arteries are located on greater stomach curvature?
a. left gastric artery;
b. left gastroepiploic artery;
c. right gastroepiploic artery;
d. right gastric artery.

20. By systems of what arteries is the stomach supplied?
a. splenic artery;

b. common hepatic artery;
c. superior mesenteric artery;
d. left gastric artery.

21. State inervation of stomach.
a. celiac plexus;
b. superior mesenteric plexus;
c. right vagus nerve;
d. left vagus nerve.

22. Name the skeletotopy of the ascending part of the duodenum.
a. L1;
b. L1 – L3;
c. L3;
d. L3 – L2.

23. Name the ligaments of the duodenum.
a. gastroduodenal ligament;
b. hepatoduodenal ligament;
c. duodenorenal ligament;
d. suspensorium duodeni ligament.

24. By systems of what arteries is the part of duodenum located in upper floor of abdominal cavity supplied?
a. gastroduodenal artery;
b. superior mesenteric artery;
c. inferior mesenteric artery;
d. splenic artery.

25. By systems of what arteries is the part of duodenum located in lower floor of abdominal cavity supplied?
a. gastroduodenal artery;
b. superior mesenteric artery;
c. inferior mesenteric artery;
d. splenic artery.

26. Name the classification of intestinal sutures according to number of rows.
a. single-layer;
b. double-layer;
c. three-layer;
d. fourth-layer.

27. Name the examples of single-layer intestinal sutures.
a. Bir-Pirogov’s suture;
b. Albert's suture;

c. Czerny's suture;
d. Lembert suture;
e. Mateshuk’s suture.

28. Name the examples of double-layer intestinal sutures.

a. Bir-Pirogov’s suture;
b. Albert's suture;
c. Czerny's suture;
d. Lembert suture;
e. Mateshuk’s suture.

29. What is the classification of intestinal sutures according to sutured layers?

a. serous suture;
b. seromucous suture;
c. seromuscular suture;
d. serosubmucosal suture;
e. seromuscularsubmucosal suture.

30. What is the classification of intestinal sutures according to technique of suturing?

a. clean suture;
b. dirty suture;
c. hand suture;
d. machine suture;
e. glue suture.

31. State the requirements to intestinal sutures.

a. hermetic;
b. aseptic;
c. hemostatic
d. physiological;
e. strong;
f. adaptated.

32. What kinds of intestinal anastomoses do you know?

a. end-to-end;
b. side-to-side;
c. end-to-side;
d. side-to-end.

33. State characteristics of end-to-end anastomosis.

a. physiological;
b. economical on use of tissues;
c. dont lead to constriction;
d. sutures can tear tissues in pars nuda;

e. easy to perform;
f. formation of “blind” ends.

34. State characteristics of side-to-side anastomosis.

a. physiological;
b. economical on use of tissues;
c. dont lead to constriction;
d. sutures can tear tissues in pars nuda;
e. easy to perform;
f. formation of “blind” ends.

35. What operations on the stomach are called radical?

a. resection of the stomach;
b. suture of perforated ulcer;
c. gastrointestinal anastomoses;
d. gastrectomy;
e. gastrostomy.

36. What operations on the stomach are called paliative?

a. resection of the stomach;
b. suture of perforated ulcer;
c. gastrointestinal anastomoses;
d. gastrectomy;
e. gastrostomy.

37. What kinds of intestinal stomas are distinguished?

a. circular;
b. longitudinal;
c. tubular;
d. lip-shaped;
e. transverse.

38. By what layer of the hollow organ is the canal of tubular stoma formed?

a. serous;
b. muscular;
c. mucous;
d. submucous.

39. By what layer of the hollow organ is the canal of lip-shaped stoma formed?

a. serous;
b. muscular;
c. mucous;
d. submucous.

40. What kind of intestinal stomas are characterized by self closure after evacuation of the tube?

a. circular;
b. longitudinal;
c. transverse;
d. lip-shaped;
e. tubular.

41. What kind of stomas is formed in case of gastrostomy by Vitsel?

a. circular;
b. tubular;
c. longitudinal;
d. lip-shaped;
e. transverse.

42. What kind of stomas is(are) formed in case of gastrostomy by Cader?

a. circular;
b. tubular;
c. longitudinal;
d. lip-shaped;
e. transverse.

43. What kind of stomas is(are)formed in case of gastrostomy by Toprover?

a. circular;
b. tubular;
c. longitudinal;
d. lip-shaped;
e. transverse.

44. Name the groups of indications for gastrostomy.

a. pyloric stenosis;
b. acute bowel obstruction;
c. inoperable cancer of the esophagus and cardiac part of the stomach;
d. esophageal stenosis;
e. rupture of the esophagus.

45. Name the groups of indications for suture of perforated ulcer.

a. more than 6 hours from the moment of perforation;
b. more than 12 hours from the moment of perforation;
c. young patients without ulcerous anamnesis;
d. old patients without ulcerous anamnesis;
e. old patients exhausted by concomitant diseases.

46. In what direction should perforated ulcer be sutured?

a. line of sutures should be in longitudinal direction to the line of stomach;

b. sutures should be in longitudinal direction to the line of stomach;
c. line of sutures should be in cross direction to the line of stomach;
d. sutures should be in cross direction to the line of stomach.

47. By what kinds of intestinal sutures can perforated ulcer be closed?
a. double-layer seromuscular suture;
b. three-layer suture;
c. dirty suture;
d. double-layer suture.

48. What kinds of gastroenteroanastomoses do you know?
a. anterior in front of transverse colon;
b. posterior in front of transverse colon;
c. anterior behind transverse colon;
d. posterior behind transverse colon.

49. What kinds of gastroenteroanastomoses are performed more often?
a. anterior in front of transverse colon;
b. posterior in front of transverse colon;
c. anterior behind transverse colon;
d. posterior behind transverse colon.

50. Name the groups of indications for making of gastroenteroanastomoses?
a. inoperable tumours of antral part of the stomach;
b. perforated ulcer of the stomach;
c. perforated ulcer of the duodenum;
d. cancer of cardiac part of the stomach.

51. What rules should be maintained while performing the gastroenteroanastomosis?
a. must be isoperistaltic;
b. must be antiperistaltic;
c. adducting intestinal loop is sutured upper than efferent;
d. intestinal Brown's anastomosis is performed between afferent and efferent loops.

52. What artery can be damaged while performing the posterior behind transverse colon gastroenteroanastomosis?
a. middle colic artery;
b. splenic artery;
c. propriate hepatic artery;
d. superior mesenteric artery.

53. Through what structure is the intestinal loop moved while performing the posterior behind transverse colon gastroenteroanastomosis?
a. lesser omentum;

b. greater omentum;
c. gastrocolic ligament;
d. transverse mesocolon.

54. Of what size must be intestinal loop while performing the posterior behind transverse colon gastroenteroanastomosis?

a. 5-10 cm;
b. 15-20 cm;
c. 25-30 cm;
d. 30-40 cm.

55. What should be done for prevention of vicious circle while performing the anterior in front of transverse colon gastroenteroanastomosis?

a. intestinal loop must be sutured isoperistaltic;
b. pyloroplasty should be done;
c. intestinal Brown's anastomosis should be performed;
d. vagotomy should be done.

56. Name the classification of stomach resections.

a. distal;
b. proximal;
c. pylorectomy;
d. antrectomy;
e. bodectomy;
f. fundectomy.

57. Name the groups of absolute indications for the stomach resection.

a. malignant neoplasm of the stomach;
b. pyloric stenosis;
c. stomach ulcer;
d. repeated ulcerous bleeding;
e. malignant transformation of stomach ulcer.

58. Name main stages of the stomach resection.

a. mobilization of stomach along greater and lesser curvature;
b. immobilization of stomach along greater and lesser curvature;
c. partial stomach resection;
d. performing of gastrointestinal anastomosis.

59. State main stages of the stomach resection by Bilroth 1.

a. mobilization of stomach along greater and lesser curvature;
b. distal 1/3 stomach resection;
c. distal 2/3 stomach resection;
d. performing of gastroduodenal end-to-end anastomosis;
e. performing of gastrojejunal end-to-side anastomosis;
f. performing of gastrojejunal side-to-side anastomosis.

60. What is characteristic of stomach resection by Bilroth 1?

a. it is physiological;
b. "afferent loop syndrome" may reveal;
c. "afferent loop syndrome" reveals seldom;
d. inadequate reduction of gastric acidity;
e. adequate reduction of gastric acidity;
f. there is no tension and sutures don't tear tissues of anastomosis;
g. sutures can tear tissues of anastomosis because of high tension.

61. State main stages of stomach resection by Bilroth 2.

a. mobilization of stomach along greater and lesser curvature;
b. distal 1/3 stomach resection;
c. distal 2/3 stomach resection;
d. performing of gastroduodenal end-to-end anastomosis;
e. performing of gastrojejunal end-to-side anastomosis;
f. performing of gastrojejunal side-to-side anastomosis.

62. What is characteristic of stomach resection by Bilroth 2?

a. it is physiological;
b. "afferent loop syndrome" may reveal;
c. "afferent loop syndrome" reveals seldom;
d. inadequate reduction of gastric acidity;
e. adequate reduction of gastric acidity;
f. there is no tension and sutures don't tear tissues of anastomosis;
g. sutures can tear tissues of anastomosis because of high tension.

63. State main stages of stomach resection by Bilroth 2 by Hofmeister-Finsterer modification.

a. mobilization of stomach along greater and lesser curvature;
b. distal 1/3 stomach resection;
c. distal 2/3 stomach resection;
d. performing of gastroduodenal end-to-end anastomosis;
e. performing of gastrojejunal end-to-side anastomosis;
f. performing of gastrojejunal side-to-side anastomosis.

64. What is characteristic of stomach resection by Bilroth 2 by Hofmeister-Finsterer modification?

a. it is physiological;
b. "afferent loop syndrome" may reveal;
c. "afferent loop syndrome" reveals seldom;
d. inadequate reduction of gastric acidity;
e. adequate reduction of gastric acidity;
f. there is no tension and sutures don't tear tissues of anastomosis;
g. sutures can tear tissues of anastomosis because of high tension.

65. What kinds of vagotomy do you know?

a. high;
b. truncal;
c. selective;
d. selective proximal.

66. Name the groups of indications for vagotomy.

a. stomach ulcers;
b. duodenal ulcers;
c. chemical burn of stomach;
d. chemical burn of duodenum.

67. What is the definition of truncal vagotomy?

a. section of both vagus nerve trunks above the origin of hepatic and celiac branches;
b. section of both vagus nerve trunks below the origin of hepatic and celiac branches;
c. section of front and back gastric branches of both vagus, except Latargee nerve;
d. section of front and back gastric branches of both vagus, with Latargee nerve.

68. What is the definition of selective vagotomy?

a. section of both vagus nerve trunks above the origin of hepatic and celiac branches;
b. section of both vagus nerve trunks below the origin of hepatic and celiac branches;
c. section of front and back gastric branches of both vagus, except Latargee nerve;
d. section of front and back gastric branches of both vagus, with Latargee nerve.

69. What is the definition of selective proximal vagotomy?

a. section of both vagus nerve trunks above the origin of hepatic and celiac branches;
b. section of both vagus nerve trunks below the origin of hepatic and celiac branches;
c. section of front and back gastric branches of both vagus, except Latargee nerve;
d. section of front and back gastric branches of both vagus, with Latargee nerve.

70. Name the groups of indications for draining operations on the stomach.

a. pyloric stenosis;
b. stomach ulcer;

c. stenosis of bulb of duodenum;
d. duodenal ulcer.

71. What kinds of draining operations on the stomach are distinguished?

a. pyloroplasty;
b. gastrostomy;
c. gastroileoanastomoses;
d. gastrojejunoastomoses;
e. gastroduodenoanastomoses.

72. What kinds of pyloroplasty do you know?

a. by Heineke-Mikulicz;
b. by Finney;
c. by Jabuley;
d. anterior in front of transverse colon;
e. posterior behind transverse colon.

73. What kinds of gastroduodenoanastomoses do you know?

a. by Heineke-Mikulicz;
b. by Finney;
c. by Jabuley;
d. anterior in front of transverse colon;
e. posterior behind transverse colon.

74. What kinds of gastrojejunoanastomoses do you know?

a. by Heineke-Mikulicz;
b. by Finney;
c. by Jabuley;
d. anterior in front of transverse colon;
e. posterior behind transverse colon.

Correct answers on topic 5

1. a, b
2. b
3. a, b, c, e
4. c
5. c, d, e
6. a
7. b
8. d
9. c
10.b, d, e
11.a, b, d
12.b
13.a, c, e
14.b, d
15.b
16.a, b, e, f
17.c, d
18.a, d
19.b, c
20.a, b, d
21.a, c, d
22.d
23.b, c, d
24.a
25.b
26.a, b, c
27.a, d, e
28.b, c
29.a, c, e
30.c, d, e
31.a, b, c, e, f
32.a, b, c, d
33.a, b, d
34.c, e, f
35.a, d
36.b, c, e
37.c, d
38.a
39.c
40.e
41.b
42.b
43.d
44.c, d, e
45.a, c, e
46.c
47.a, d
48.a, b, c, d
49.a, d
50.a
51.a, c, d
52.a
53.d
54.b
55.c
56.a, b, c, d, f
57.a, b, d, e
58.a, c, d
59.a, b, d
60.a, d, g
61.a, c, f
62.b, e, f
63.a, c, e
64.c, e, f
65.b, c, d
66.b
67.a
68.b
69.c
70.a, c
71.a, d, e
72.a, b
73.c
74.d, e

Topic 6

TOPOGRAPHIC ANATOMY AND OPERATIONS ON ORGANS OF LOWER FLOOR OF ABDOMINAL CAVITY

1. The lower compartment of the abdominal cavity include:
a. liver;
b. gallbladder;
c. spleen;
d. small and large intestine;
e. stomach.

2. The right mesenterial sinus is superiorly limited by:
a. descending colon;
b. ascending colon;
c. mesentery;
d. transverse mesocolon.

3. The right mesenterial sinus is bounded from the left mesenterial sinus by:
a. descending colon;
b. ascending colon;
c. mesentery;
d. transverse mesocolon.

4. The left mesenterial sinus is freely communicated with:
a. right mesenterial sinus;
b. small pelvis;
c. upper floor of abdominal cavity;
d. pregastric bursa.

5. The left mesenterial sinus is limited on the left by:
a. descending colon;
b. ascending colon;
c. mesentery;
d. transverse mesocolon.

6. The right lateral canal is laterally limited by:
a. descending colon;
b. ascending colon;
c. anterolateral abdominal wall;
d. transverse mesocolon.

7. The left lateral canal is medially limited by:
a. ascending colon;

b. descending colon;
c. anterolateral abdominal wall;
d. transverse mesocolon.

8. What peritoneal recesses are located at duodenojejunal junction?
a. superior duodenojejunal recess;
b. inferior duodenojejunal recess;
c. superior ileocolic recess;
d. inferior ileocolic recess;
e. retrocaecal recess.

9. What peritoneal recesses are located at ileocolic junction?
a. superior duodenojejunal recess;
b. inferior duodenojejunal recess;
c. superior ileocolic recess;
d. inferior ileocolic recess;
e. retrocaecal recess.

10. Into what does the right lateral canal pass superiorly?
a. small pelvis;
b. right mesenterial sinus;
c. omental bursa;
d. subhepatic bursa.

11. State peritoneal coverage of jejunum and ileum.
a. mesoperitoneal;
b. intraperitoneal;
c. extraperitoneal;
d. retroperitoneal.

12. State skeletotopy of root of mesentery.
a. from L2 to right sacroiliac joint;
b. from L2 to left sacroiliac joint;
c. from L3 to right sacroiliac joint;
d. from L3 to left sacroiliac joint.

13. Features of blood supply of small intestine.
a. arcade type;
b. segmental type;
c. on 2 intestinal arteries – 1 vein;
d. on 2 intestinal veins – 1 artery.

14. State innervation of jejunum and ileum.
a. celiac plexus;
b. inferior mesenteric plexus;

c. superior mesenteric plexus;
d. aortal plexus.

15. Where is the cecum more often located?
a. right iliac fossa;
b. left iliac fossa;
c. right hypochondrium;
d. left hypochondrium.

16. State peritoneal coverage of the cecum.
a. mesoperitoneal;
b. intraperitoneal;
c. extraperitoneal;
d. retroperitoneal.

17. Name the position of the base of appendix.
a. point on the border between right external and middle parts of spinoumbilical line;
b. point on the border between left external and middle parts of spinoumbilical line;
c. point on the border between left external and middle parts of bispinal line;
d. point on the border between right external and middle parts of bispinal line.

18. Name the positions of the apex of appendix according to the cecum.
a. descending;
b. ascending;
c. medial;
d. lateral;
e. retrocecal.

19. State normal position of the apex of appendix.
a. lateral descending;
b. medial descending;
c. lateral ascending;
d. medial ascending.

20. State peritoneal coverage of the ascending and descending colon.
a. mesoperitoneal;
b. intraperitoneal;
c. extraperitoneal;
d. retroperitoneal.

21. Where is the left colic flexure located?
a. epigastric region;
b. right hypochondrium;

c. left hypochondrium;
d. right lateral region;
e. left lateral region.

22. Where is the right colic flexure located?

a. epigastric region;
b. right hypochondrium;
c. left hypochondrium;
d. right lateral region;
e. left lateral region.

23. State peritoneal coverage the transverse and sigmoid colon.

a. mesoperitoneal;
b. intraperitoneal;
c. extraperitoneal;
d. retroperitoneal.

24. At what level does the sigmoid colon begin?

a. from the level of the iliac crest;
b. from the level of the pubic symphysis;
c. from the level of the first sacral vertebra;
d. from the level of the third sacral vertebra.

25. At what level does the sigmoid colon become continuous with the rectum?

a. from the level of the iliac crest;
b. from the level of the pubic symphysis;
c. from the level of the first sacral vertebra;
d. from the level of the third sacral vertebra.

26. What parts of the large intestine are supplied by superior mesenteric artery?

a. cecum;
b. ascending colon;
c. descending colon;
d. transverse colon;
e. sigmoid colon;
f. superior part of the rectum.

27. What parts of the large intestine are supplied by inferior mesenteric artery?

a. cecum;
b. ascending colon;
c. descending colon;
d. transverse colon;
e. sigmoid colon;
f. superior part of the rectum.

28. By what is the blood supply of ileocolic junction provided?

a. iliac artery;
b. iliocolic artery;
c. right colic artery;
d. medial colic artery.

29. By what is the arterial arch of Riolan formed?

a. right colic artery;
b. right branch of medial colic artery;
c. left branch of medial colic artery;
d. left colic artery.

30. Name critical points of blood supply of the large intestine.

a. ileocecal angle;
b. right colic flexure;
c. left colic flexure;
d. rectosigmoid part.

31. State the venous outflow from the large intestine.

a. superior mesenteric vein;
b. inferior mesenteric vein;
c. splenic vein;
d. inferior vena cava.

32. State innervation of the large intestine.

a. celiac plexus;
b. inferior mesenteric plexus;
c. aortal plexus;
d. superior mesenteric plexus.

33. What kind of suture is better for closure of the intestinal stab-wounds?

a. purse-string suture;
b. double-layer suture;
c. three- layer suture;
d. resection is indicated.

34. What kind of suture is better for closure of the intestinal wounds less then 1/3 of diameter?

a. purse-string suture;
b. double-layer suture;
c. three- layer suture;
d. resection is indicated.

35. What kind of suture is better for closure of the intestinal wounds more then 1/3 of diameter?

a. purse-string suture;

b. double-layer suture;
c. three- layer suture;
d. resection is indicated.

36. Name stages of the bowel resection.
a. immobilization;
b. mobilization;
c. resection;
d. performing an anastomosis.

37. What kinds of mobilization of the small intestine do you know?
a. longitudinal;
b. line;
c. wedge-shaped;
d. transverse.

38. In what direction should the surgeon put intestinal forceps to perform a resection with end-to-end anastomosis?
a. 180°;
b. 30°;
c. 45°
d. 90°.

39. With what purpose should the surgeon put intestinal forceps in oblique direction to perform a resection with end-to-end anastomosis?
a. to decrease hemorrhage;
b. to increase cross section of anastomosis;
c. to preserve intestinal peristalsis;
d. to improve blood circulation in anastomosis.

40. With what purpose should the surgeon close a defect of mesentery at bowel resection?
a. for peritonization;
b. to prevent peritoneal commissures;
c. to prevent incarceration of the loop of intestine;
d. to prevent bleeding.

41. What features should the surgeon take into account performing large bowel resection?
a. anastomosis can be performed only between intraperitoneal parts of large bowel;
b. anastomosis can be performed only between mesoperitoneal parts of large bowel;
c. blood supply should be taken into account;
d. anastomosis can be performed only between parts of large bowel which are equal in diameter.

42. What is right hemicolectomy?

a. removal of terminal 10–15 cm of ileum, caecum, ascending, right flexure and right 1/3 of transverse colon;
b. performing ileotransverse anastomosis;
c. removal of left 1/3 of transverse, left flexure, descending and half of sigmoid colon;
d. performing transversosigmoid anastomosis.

43. What is left hemicolectomy?

a. removal of terminal 10–15 cm of ileum, caecum, ascending, right flexure and right 1/3 of transverse colon;
b. performing ileotransverse anastomosis;
c. removal of left 1/3 of transverse, left flexure, descending and half of sigmoid colon;
d. performing transversosigmoid anastomosis.

44. What kinds of appendectomy do you know?

a. retroperitoneal;
b. antegrade;
c. retrograde;
d. antecaecal.

45. Name the approaches for appendix.

a. by Fyodorov;
b. by Cocker;
c. by McBurney-Volkovich-Dyakonov;
d. by Pirogov;
e. by Lennander.

46. Name the structures through which the incision at appendectomy passes.

a. through the skin, subcutaneous fat, transverse and internal oblique muscles, preperitoneal fat, peritoneum;
b. through the skin, subcutaneous fat, external and internal oblique muscles, transverse muscle, preperitoneal fat, peritoneum;
c. through the skin, subcutaneous fat, apopneurosis of external oblique muscle, internal oblique and transverse muscles, preperitoneal fat, peritoneum;
d. through the skin, subcutaneous fat, transverse muscle, preperitoneal fat, peritoneum.

47. In what distance from the base of appendix is purse-string suture put on the caecum at appendectomy?

a. near the base of appendix;
b. 1-1.5 cm;
c. 3-4 cm;
d. 5-6 cm.

48. In what case should the surgeon make retrograde appendectomy?

a. at pelvic location of appendix;
b. at appendix length more than 10 cm;
c. at fixing of appendix by adhesions to back abdominal wall;
d. at short appendix.

49. What is Meckel's diverticulum?

a. residual umbilical duct;
b. residual urinary duct;
c. residual spermatic duct;
d. residual duodenal duct.

50. Name variants of operations for removal of Meckel's diverticulum.

a. removal of diverticulum like in appendectomy;
b. invagination of diverticulum into ileum;
c. resection of diverticulum;
d. bowel resection with diverticulum.

51. State indications for jejunostomy.

a. cancer of ileum;
b. cancer of stomach;
c. jejunal obstruction;
d. chemical burn of stomach.

52. With what purpose is ileostomy usually performed?

a. to feed the patient;
b. for flatus diversion;
c. for intestinal contents diversion;
d. for foreign body removal.

53. What kinds of colostomy do you know?

a. caecostomy;
b. transversostomy;
c. sigmostomy;
d. rectostomy.

54. State indications for anus praeternaturalis performing.

a. tumors of rectum;
b. wounds of rectum;
c. strictures of rectum;
d. fistulas of rectum;
e. malformations of rectum.

55. What kinds of anus praeternaturalis performing do you know?

a. temporary;
b. permanent;

c. reconstructive;
d. palliative.

56. What kinds of anus praeternaturalis performing do you know?

a. terminal colostomy;
b. initial colostomy;
c. double-loop colostomy;
d. three-loop colostomy.

Correct answers on topic 6

1. d
2. d
3. c
4. a, b
5. a
6. c
7. b
8. a, b
9. c, d
10.d
11.b
12.a
13.a, b, c
14.c
15.a
16.a, b
17.a, d
18.a, b, c, d, e
19.d
20.a
21.c
22.b
23.b
24.a
25.d
26.a, b, d
27.c, e, f
28.b
29.c, d
30.a, b, c, d
31.a, b
32.b, d
33.a
34.b
35.d
36.b, c, d
37.b, c
38.c
39.b
40.c
41.a, c
42.a, b
43.c, d
44.b, c
45.c, e
46.c
47.b
48.a, c
49.a
50.a, c, d
51.b, d
52.b, c
53.a, b, c
54.a, b, c, d, e
55.a, b
56.a, c

Topic 7

TOPOGRAPHIC ANATOMY AND OPERATIONS ON PARENCHYMAL ORGANS

1. Name the superior boundary of the liver along the right midclavicular line?
a. IV intercostals space;
b. V intercostals space;
c. VI intercostals space;
d. X intercostals space.

2. Name the ligaments of liver with organs of the abdominal cavity.
a. hepatophrenic ligament;
b. hepatogastric ligament;
c. hepatoduodenal ligament;
d. hepatorenal ligament.

3. Name the ligaments of liver with the walls of the abdominal cavity.
a. coronary ligament;
b. hepatoduodenal ligament;
c. falciform ligament of liver;
d. triangular ligament of liver.

4. What structure is necessary to squeeze for temporal arrest of hepatic bleeding?
a. hepatophrenic ligament;
b. hepatogastric ligament;
c. hepatorenal ligament;
d. hepatoduodenal ligament.

5. State main sources of liver blood supply.
a. hepatic artery;
b. hepatic vein;
c. portal vein;
d. superior mesenteric artery.

6. From fusion of what veins is the portal vein formed?
a. superior mesenteric vein;
b. inferior mesenteric vein;
c. hepatic vein;
d. splenic vein.

7. State holotopy of liver.
a. right hypochondrium;

b. proper epigastric region;
c. left hypochondrium;
d. umbilical region.

8. State peritoneal coverage of liver.
a. mesoperitoneal;
b. intraperitoneal;
c. extraperitoneal;
d. retroperitoneal.

9. Beetwen what lobes is the gallbladder situated on visceral surface of the liver?
a. II and III;
b. III and IV;
c. IV and V;
d. V and VI.

10. Where is the point of projection of the fundus of the gallbladder on the anterior abdominal wall determined?
a. angle formed by costal margin and external edge of left rectus muscle;
b. angle formed by costal margin and external edge of right rectus muscle;
c. angle formed by costal margin and white [Hunter's] line;
d. angle formed by erector spine muscle and external edge of right rectus muscle.

11. By what is the left boundary of diagnostic triangle of *Calo* formed?
a. cystic artery;
b. right hepatic artery;
c. common bile duct;
d. cystic duct.

12. Name the skeletotopy of the tail of pancreas.
a. L1;
b. L1 – L2;
c. Th12;
d. L3 – L2.

13. Name the line of the projection of the pancreas on anterior abdominal wall.
a. vertical line line via middle point between xiphoid process and umbilicus;
b. horizontal line via middle point between costal margin and iliac crest;
c. vertical line via middle point between costal margin and iliac crest;
d. horizontal line via middle point between xiphoid process and umbilicus.

14. To what part of the duodenum is the pancreas fixed?
a. bulb of duodenum;

b. descending part;
c. horizontal part;
d. ascending part.

15. What structures are located posterior to the head of the pancreas?
a. right renal vessels;
b. superior mesenteric vein;
c. aorta;
d. common bile duct;
e. splenic artery;
f. inferior vena cava.

16. What structures are located posterior to the body of the pancreas?
a. right renal vessels;
b. superior mesenteric vein;
c. aorta;
d. common bile duct;
e. splenic artery;
f. inferior vena cava.

17. By what arteries is the head of pancreas supplied?
a. anterior superior pancreaticoduodenal artery;
b. posterior superior pancreaticoduodenal artery;
c. pancreatic branches of splenic artery;
d. anterior inferior pancreaticoduodenal artery;
e. posterior inferior pancreaticoduodenal artery.

18. By what arteries are the body and tail of pancreas supplied?
a. anterior superior pancreaticoduodenal artery;
b. posterior superior pancreaticoduodenal artery;
c. pancreatic branches of splenic artery;
d. anterior inferior pancreaticoduodenal artery;
e. posterior inferior pancreaticoduodenal artery.

19. Name the skeletotopy of the spleen.
a. between IX and XI ribs from paravertebral to middle axillary line;
b. between X and XII ribs from paravertebral to middle axillary line;
c. between IX and XI ribs from scapular to posterior axillary line;
d. between X and XII ribs from scapular to posterior axillary line.

20. State peritoneal coverage of spleen.
a. mesoperitoneal;
b. intraperitoneal;
c. extraperitoneal;
d. retroperitoneal.

21. In what area is spleen located?

a. right hypochondrium;
b. left hypochondrium;
c. umbilical region;
d. proper epigastric region.

22. What organs does the splenic artery supply?

a. spleen;
b. duodenum;
c. stomach;
d. pancreas.

23. Name operative approaches for liver and biliary tracts.

a. by Lennander;
b. by Fedorov;
c. by Pfannenshtile;
d. by Kocher;
e. by Rio-Branko.

24. What ways of bleeding control from parenchymal organs do you know?

a. mechanical;
b. physical;
c. mathematical;
d. biological;
e. chemical.

25. What kinds of haemostatic sutures do you know?

a. Kuznetsov-Penski;
b. Bilroth;
c. Oppel;
d. Kocher;
e. Giordano.

26. What kinds of liver resection do you know?

a. typical;
b. atypical;
c. palliative;
d. radical.

27. What kinds of typical liver resection do you know?

a. marginal;
b. wedge-shaped;
c. lobectomy;
d. segmentectomy;
e. hemihepatectomy.

28. What kinds of atypical liver resection do you know?

a. marginal;
b. lobectomy;
c. wedge-shaped;
d. planar
e. transversal.

29. What kinds of cholecystectomy do you know?

a. from body;
b. from tail;
c. from neck;
d. from bottom.

30. Name the most common complication during cholecystectomy from bottom.

a. necrosis of right lobe of liver;
b. necrosis of left lobe of liver;
c. penetration of gallstone into common bile duct;
d. constriction of common bile duct.

31. Name the most common complications during cholecystectomy from neck.

a. necrosis of right lobe of liver;
b. necrosis of left lobe of liver;
c. penetration of gallstone into common bile duct;
d. constriction of common bile duct.

32. State indications for choledochotomy.

a. acute cholecystitis;
b. cholangitis;
c. gallstones in common bile duct;
d. chronic cholecystitis.

33. What are the variants of finishing of choledochotomy?

a. external drainage of common bile duct;
b. internal drainage of common bile duct;
c. common bile duct closure;
d. resection of common bile duct.

34. What structures are removed in pancreatoduodenal resection?

a. stomach;
b. duodenum;
c. jejunum;
d. head of pancreas;
e. tail of pancreas.

35. What anastomoses are performed after pancreatoduodenal resection?

a. gastrojejunal anastomosis;
b. choledochojejunal anastomosis;
c. choledochopancreatic anastomosis;
d. pancreatojejunal anastomosis;
e. enteroenteroanastomosis.

Correct answers on topic 7

1. a
2. b, c, d
3. a, c, d
4. d
5. a, c
6. a, d
7. a, b, c
8. a
9. c
10.b
11.b, d, f
12.c
13.d
14.b
15.d, f
16.b, c, e
17.a, b, d, e
18.c
19.a
20.b
21.b
22.a, c, d
23.b, d, e
24.a, b, d, e
25.a, c, e
26.a, b
27.c, d, e
28.a, c, d, e
29.c, d
30.c
31.a, d
32.b, c
33.a, b, c
34.b, d
35.a, b, d, e

Topic 8

TOPOGRAPHIC ANATOMY OF LUMBAR REGION AND RETROPERITONEAL SPACE. OPERATIONS ON KIDNEYS AND URETERS

1. State borders of lumbar region.
a. inguinal ligament;
b. 12 rib;
c. iliac crest;
d. medial axillary line;
e. line of spinal processes.

2. How much layers of muscles are located in lumbar region?
a. one;
b. two;
c. three;
d. four;
e. five.

3. Name muscles of the first layer of lumbar region.
a. external oblique muscle;
b. internal oblique muscle;
c. latissimal dorsal muscle;
d. erector muscle of spine;
e. inferior posterior serratus muscle.

4. Name muscles of the second layer of lumbar region.
a. external oblique muscle;
b. internal oblique muscle;
c. latissimal dorsal muscle;
d. erector muscle of spine;
e. inferior posterior serratus muscle.

5. Name weak places of lumbar region.
a. Bochdalek's gap;
b. Petit's triangle;
c. Lesgaft-Grunfeld rhomb;
d. Larey’s fissure.

6. State borders of Petit's triangle.
a. lattissimal dorsal muscle;
b. external oblique muscle;
c. internal oblique muscle;

d. erector muscle of spine;
e. crest of iliac bone.

7. State borders of Lesgaft-Grunfeld rhomb.
a. 12 rib;
b. external oblique muscle;
c. internal oblique muscle;
d. erector muscle of spine;
e. inferior posterior serratus muscle.

8. Beetwen what zones is the retroperitoneal space located anteriorly and posteriorly?
a. parietal peritoneum of posterior abdominal wall;
b. parietal peritoneum of anterior abdominal wall;
c. transversal fascia;
d. quadrate fascia;
e. psoatic fascia.

9. Enumerate the layers of the retroperitoneal space.
a. proper retroperitoneal fat;
b. proper lumbar fat;
c. paranephron;
d. paraileum;
e. paracolon.

10. By what is proper retroperitoneal fat limited anteriorly and posteriorly?
a. prerenal fascia;
b. retrorenal fascia;
c. retrocolic fascia;
d. endoabdominal fascia.

11. Into what does the first layer of the retroperitoneal fat freely pass inferiorly?
a. retrorectal fat space;
b. lateral fat space;
c. paraureteral fat space;
d. cavity of small pelvis.

12. What structures are located in the proper retroperitoneal space?
a. portal vein;
b. inferior vena cava;
c. aorta;
d. abdominal aortic plexus;
e. thoracic duct.

13. Beetwen what zones is paranephron located posteriorly and anteriorly?

a. prerenal fascia;
b. retrorenal fascia;
c. retrocolic fascia;
d. endoabdominal fascia.

14. Beetwen what zones is paracolon located posteriorly and anteriorly?

a. prerenal fascia;
b. retrorenal fascia;
c. retrocolic fascia;
d. endoabdominal fascia.

15. At what level is the paracolon finished inferiorly?

a. at the level of caecum;
b. at the level of transverse mesocolon;
c. at the level of mesentery;
d. at the level of mesentery of sigmoid colon.

16. Name the skeletotopy of kidneys.

a. left kidney – Th12-L2;
b. right kidney – Th12-L2;
c. left kidney – Th11-L1;
d. right kidney – Th11-L1.

17. Name the syntopy of structures of the renal pedicle from posteriorly to anteriorly.

a. vein, artery, ureter;
b. artery, vein, ureter;
c. ureter, artery, vein;
d. vein, ureter, artery;
e. artery, ureter, vein.

18. Name the syntopy of anterior surface of the right kidney.

a. spleen;
b. left flexure of colon;
c. right flexure of colon;
d. descending part of duodenum;
e. right lobe of liver.

19. Name the syntopy of anterior surface of the left kidney.

a. posterior wall of stomach;
b. tail of pancreas;
c. right flexure of colon;
d. left flexure of colon;
e. spleen.

20. What structure plays the role in fixation of kidneys?

a. muscular bed;
b. epinephros;
c. adipose and fascial kidney capsule;
d. intra-abdominal pressure;
e. kidney pedicle.

21. By what is muscular bed of kidney formed?

a. diaphragm;
b. transverse muscle;
c. tailor's muscle;
d. greater psoas muscle;
e. lumbar quadrate muscle.

22. What parts of ureter do you know?

a. abdominal;
b. terminal;
c. pelvic;
d. uterine;
e. intramural.

23. How many constrictions in ureter are(is) possible?

a. one;
b. two;
c. three;
d. four;
e. five.

24. State structure which is located medially from right ureter.

a) inferior vena cava;
b) aorta;
c) descending colon;
d) ascending colon;
e) testicular vessels.

25. State structure which is located medially from left ureter.

a. inferior vena cava;
b. aorta;
c. descending colon;
d. ascending colon;
e. testicular vessels.

26. What does the right ureter cross at level linea terminalis?

a. inferior vena cava;
b. aorta;

c. common iliac vein;
d. common iliac artery;
e. external iliac artery.

27. What does the left ureter cross at level linea terminalis?

a. inferior vena cava;
b. aorta;
c. common iliac vein;
d. common iliac artery;
e. external iliac artery.

28. State blood supply of ureters.

a. ureteric artery;
b. renal artery;
c. testicular artery;
d. ovarian artery;
e. inferior vesical artery.

29. Name parietal branches of aorta.

a. inferior phrenic arteries;
b. 4 pairs of lumbar arteries;
c. renal arteries;
d. median sacral artery;
e. middle suprarenal arteries.

30. Name visceral branches of aorta.

a. testicular arteries;
b. ovarian arteries;
c. renal arteries;
d. median sacral artery;
e. middle suprarenal arteries.

31. Name parietal inflows of inferior vena cava.

a. inferior phrenic veins;
b. 4 pairs of lumbar veins;
c. right renal vein;
d. left renal vein;
e. hepatic veins.

32. Name visceral inflows of inferior vena cava.

a. left suprarenal vein;
b. right suprarenal vein;
c. right renal vein;
d. left renal vein;
e. hepatic veins;
f. right testicular vein.

33. Name autonomic plexuses of retroperitoneal space.

a. celiac;
b. renal;
c. superior mesenteric;
d. inferior mesenteric;
e. superior hypogastric;
f. inferior hypogastric.

34. Name sources of formation of lumbar plexus.

a. anterior branches of Th11 spinal nerves;
b. anterior branches of Th12 spinal nerves;
c. anterior branches of L1 spinal nerves;
d. anterior branches of L2 spinal nerves;
e. anterior branches of L3 spinal nerves.

35. Name branches of lumbar plexus.

a. iliohypogastric nerve;
b. sciatic nerve;
c. ilioinguinal nerve;
d. lateral cutaneous nerve of thigh;
e. femoral nerve;
f. genitofemoral nerve.

36. State transperitoneal approaches to organs of retroperitoneal space.

a. midline laparotomy;
b. Pean's approach;
c. Bergmann-Israel's;
d. Fedorov's;
e. pararectal laparotomy.

37. State extraperitoneal approaches to organs of retroperitoneal space.

a. midline laparotomy;
b. Pean's approach;
c. Bergmann-Israel's;
d. Fedorov's;
e. pararectal laparotomy.

38. State the place of section of kidney at nephrotomy.

a. longitudinal incision in Zondec zone;
b. transverse incision by Rubashov;
c. transverse incision by Hasselbacher;
d. longitudinal incision by McBurney;
e. longitudinal incision on convex edge of kidney.

39. Name the sequence of kidney elimination from adipose capsula at nephrectomy.

a. back surface, bottom pole, forward surface, top pole;
b. bottom pole, forward surface, top pole, back surface;
c. forward surface, top pole, back surface, bottom pole;
d. top pole, back surface, bottom pole, forward surface.

40. What is the sequence of renal pedicle processing by extraperitoneal approach at nephrectomy?

a. renal artery, ureter, renal vein;
b. ureter, renal artery, renal vein;
c. renal artery, renal vein, ureter;
d. ureter, renal vein, renal artery;
e. renal vein, renal artery, ureter.

41. What is the sequence of renal pedicle processing at nephrectomy in case of tumors?

a. renal artery, ureter, renal vein;
b. ureter, renal artery, renal vein;
c. renal artery, renal vein, ureter;
d. ureter, renal vein, renal artery;
e. renal vein, renal artery, ureter.

42. What kinds of pyelotomy do you know?

a. anterior;
b. medial;
c. posterior;
d. lateral;
e. superior;
f. inferior.

43. What layer of renal pelvis is not sutured after pyelotomy?

a. serous;
b. muscular;
c. submucous;
d. mucous.

44. What are the consequences of nephroptosis?

a. hydronephrosis;
b. discharge of kidney hemodynamics;
c. suppurative nephritis;
d. compression of pelvic organs.

45. State reasons for nephroptosis.

a. overweight;

b. weakness of muscular bed;
c. prelum abdominale weakening;
d. thinning of adipose capsule.

46. What are the variants of nephropexy?

a. methods of fixing for epinephros to 12 rib;
b. methods of fixing for fibrous capsule to 12 rib;
c. methods of fixing for adipose capsule to 12 rib;
d. plastic methods with use of polymeric materials;
e. plastic methods with use of muscle flaps.

47. What kinds of transplantation of kidney do you know?

a. orthotopic;
b. autotopic;
c. heterotopic;
d. xenotopic.

48. What kinds of anastomoses are performed during heterotopic transplantation of kidney?

a. anastomosis between renal artery and external iliac artery;
b. anastomosis between renal arteries;
c. anastomosis between renal vein and external iliac vein;
d. anastomosis between renal veins;
e. anastomosis between ureters;
f. anastomosis between ureter and urinary bladder.

49. What kinds of anastomoses are performed during orthotopic kidney transplantation?

a. anastomosis between renal artery and external iliac artery;
b. anastomosis between renal arteries;
c. anastomosis between renal vein and external iliac vein;
d. anastomosis between renal veins;
e. anastomosis between ureters;
f. anastomosis between ureter and urinary bladder.

50. State requirements for suture of ureter.

a. mucous tunic is not taken into suture;
b. all layers are taken into suture;
c. should be hermetic;
d. should not be narrowing;
e. should not be tension;
f. ureter is not taken from paraureterium on large extent.

51. What kind of operation is performed for preservation kidney function at impossibility of ureter anastomosis formation?

a. ureterostomy;
b. ureterotomy;
c. nephrotomy;
d. nephropexy;
e. ureterolithotomy.

52. State indications for paranephral block.

a. cephalalgia;
b. renal colic;
c. biliary colic;
d. pancreatitis;
e. pleuropulmonary shock.

53. Where is the point of injection for paranephral block located?

a. In the corner between costal margin and erector muscle of spine;
b. In the corner between 12 rib and erector muscle of spine;
c. In the corner between costal margin and rectus muscle of abdomen;
d. In the corner between iliac crest and erector muscle of spine.

Correct answers on topic 8

1. b, c, d, e
2. c
3. a, c
4. b, d, e
5. b, c
6. a, b, e
7. a, c, d, e
8. a, c, d, e
9. a, c, e
10.b, d
11.a
12.b, c, d, e
13.a, b
14.a, c
15.a, d
16.b, c
17.c
18.c, d, e
19.a, b, d, e
20.a, c, d, e
21.a, d, e
22.a, c, e
23.c
24.a
25.b
26.e
27.d
28.b, c, d, e
29.a, b, d
30.a, b, c, e
31.a, b
32.b, c, d, e, f
33.a, b, c, d, e
34.b, c, d, e
35.a, c, d, e, f
36.a, e
37.b, c, d
38.a, b, c, e
39.a
40.b
41.d
42.a, c, e, f
43.d
44.a, b
45.b, c, d
46.b, c, d, e
47.a, c
48.a, c, f
49.b, d, e
50.a, c, d, e, f
51.a
52.b, c, d, e
53.b

Topic 9

TOPOGRAPHIC ANATOMY OF PELVIS AND PERINEUM. OPERATIONS ON PELVIC ORGANS

1. State the upper border of small pelvis.

a. terminal line;
b. spigelian line;
c. anocutaneous line;
d. posterior gluteal line;
e. anorectal line.

2. Name muscles covering walls of small pelvis.

a. piriformis muscle;
b. external obturator and piriformis muscles;
c. internal obturator muscle;
d. external obturator and superior gemelly muscles;
e. elevator muscle of anus and piriformis muscle.

3. What structure closes an output from small pelvis?

a. superficial transverse muscle of perineum;
b. deep transverse muscle of perineum;
c. pelvic diaphragm;
d. urogenital diaphragm;
e. soft tissues of perineum.

4. By what structures are the greater and lesser ischiadic foramens formed?

a. sacrospinal and sacrotuberal ligaments;
b. pubosacral and sacrospinal ligaments;
c. ischiofemoral ligament;
d. greater sciatic notch;
e. lesser sciatic notch.

5. What structures take part in formation of urogenital diaphragm?

a. deep transverse muscle of perineum, superior and inferior fascia of urogenital diaphragm;
b. superficial transverse muscle of perineum, superior and inferior fascia of urogenital diaphragm;
c. deep transverse muscle of perineum;
d. superficial transverse muscle of perineum.

6. State the structures which pass through urogenital diaphragm at women.

a. urethra;
b. vagina;

c. rectum;
d. ureters.

7. Name superficial muscles of urogenital region.

a. superficial transverse muscle of perineum;
b. deep transverse muscle of perineum;
c. ischiocavernous muscle;
d. external sphincter muscle of anus;
e. bulbospongious muscle.

8. What structures take part in formation of pelvic diaphragm?

a. elevator muscle of anus, superior and inferior fascia of pelvic diaphragm;
b. elevator muscle of anus and coccygeal muscle, superior and inferior fascia of pelvic diaphragm;
c. elevator muscle of anus;
d. elevator muscle of anus and coccygeal muscle.

9. State the structures which pass through pelvic diaphragm at women.

a. urethra;
b. vagina;
c. rectum;
d. ureters.

10. Name superficial muscles of urogenital region.

a. superficial transverse muscle of perineum;
b. deep transverse muscle of perineum;
c. ischiocavernous muscle;
d. external sphincter muscle of anus;
e. bulbospongious muscle.

11. What groups of fat spaces in subperitoneal compartment of small pelvis are distinguished?

a. superficial and deep;
b. parietal and visceral;
c. lateral and medial;
d. anterior and posterior.

12. Name parietal fat spaces in subperitoneal compartment of small pelvis.

a. preperitoneal;
b. prevesical;
c. retrovesical
d. paravesical;
e. retrorectal.

13. State ways of pus distribution from lateral space.

a. into retroperitoneal space;
b. into gluteal region;
c. into abdominal cavity;
d. into retrovesical space;
e. into adduction bed of hip.

14. What structures are located in retrorectal fat space?

a. superior and inferior sacral arteries;
b. internal iliac vessels;
c. sympatic nerves;
d. venous plexus;
e. sacral lymph nodes.

15. What compartments in small pelvis are distinguished?

a. abdominal;
b. peritoneal;
c. subperitoneal;
d. subcutaneous.

16. State the borders of peritoneal compartment of small pelvis.

a. peritoneum and pelvic fascia;
b. peritoneum and skin;
c. peritoneum and terminal line of pelvis;
d. pelvic fascia and skin.

17. State the borders of subperitoneal compartment of small pelvis.

a. peritoneum and pelvic fascia;
b. peritoneum and skin;
c. peritoneum and terminal line of pelvis;
d. pelvic fascia and skin.

18. What organs are located in peritoneal compartment of small pelvis in men?

a. urinary bladder;
b. rectum;
c. bulbourethral glands;
d. prostate;
e. seminal vesicles;
f. ureters;
g. urethra.

19. What organs are located in subperitoneal compartment of small pelvis in men?

a. urinary bladder;
b. rectum;

c. bulbourethral glands;
d. prostate;
e. seminal vesicles;
f. ureters;
g. urethra.

20. What organs are located in subcutaneous compartment of small pelvis in men?

a. urinary bladder;
b. rectum;
c. bulbourethral glands;
d. prostate;
e. seminal vesicles;
f. ureters;
g. urethra.

21. What organs are located in peritoneal compartment of small pelvis in women?

a. urinary bladder;
b. rectum;
c. uterus;
d. vagina;
e. uterine appendages;
f. ureters;
g. urethra.

22. What organs are located in subperitoneal compartment of small pelvis in women?

a. urinary bladder;
b. rectum;
c. uterus;
d. vagina;
e. uterine appendages;
f. ureters;
g. urethra.

23. What organs are located in subcutaneous compartment of small pelvis in women?

a. urinary bladder;
b. rectum;
c. uterus;
d. vagina;
e. uterine appendages;
f. ureters;
g. urethra.

24. Name the walls of ischiorectal fossa.

a. elevator muscle of anus;
b. ischial bone;
c. iliac bone;
d. skin;
e. rectum;
f. internal obturator muscle.

25. State the basic visceral branches of internal iliac artery.

a. inferior vesical arteries;
b. uterine arteries;
c. medial rectal arteries;
d. internal pudendal arteries;
e. obturator arteries.

26. State parietal branches of internal iliac artery.

a. lateral sacral arteries;
b. internal pudendal arteries;
c. obturator arteries;
d. superior gluteal arteries;
e. inferior gluteal arteries.

27. State location of sacral plexus.

a. internally to anterior sacral foramina;
b. in front of anterior sacral foramina;
c. externally to anterior sacral foramina;
d. on the wings of ilium.

28. Name sources of sympathetic innervation of organs of small pelvis.

a. sacral plexus;
b. right hypogastric nerve;
c. left hypogastric nerve;
d. sciatic nerve;
e. obturator nerve.

29. State the sources of formation of sacral plexus.

a. 4-5 lumbar and 1-3 sacral roots of spinal nerves;
b. 3-5 lumbar and 1-2 sacral roots of spinal nerves;
c. 1-2 sacral roots of spinal nerves;
d. 5 lumbar and 1-2 sacral roots of spinal nerves;
e. 3-5 lumbar roots of spinal nerves.

30. What groups of lymph nodes in small pelvis do you know?

a. group along common iliac artery;
b. group along external iliac artery;

c. group along internal iliac artery;
d. group along pelvic surface of sacral bone;
e. group along sacroiliac joint.

31. How many arteries supply rectum?

a. one;
b. two;
c. three;
d. four;
e. five.

32. What parts in pelvic department of rectum do you know?

a. ampulla;
b. supraampullar part;
c. anal part;
d. sphincter.

33. What structures are located in front of rectum in men?

a. urinary blader;
b. urethra;
c. prostata gland;
d. seminal vesicles;
e. urethers.

34. How many sphincters are located in rectum?

a. one;
b. two;
c. three;
d. four;
e. five.

35. What structures are located in front of rectum in women?

a. posterior wall of vagina;
b. posterior fornix of vagina;
c. body of uterus;
d. posterior wall of cervix of the uterus;
e. ovary.

36. State the ways of pelvic fat spaces draining.

a. through adduction bed of hip;
b. suprapubic extraperitoneal;p
c. perineal;
d. through the rectum.

37. Name the indications for pudendal block.

a. profuse bleeding;
b. forceps delivery;
c. episiotomy;
d. suturing of episiotomic wound;
e. suturing of perineal rupture.

38. What ways of pudendal block do you know?

a. gluteal;
b. perineal;
c. femoral;
d. transvaginal.

39. Where the place of injection for pudendal block is located?

a. on middle of line, drawn from back wall of vagina to ischial tuberosity;
b. on the border between right external and middle parts of spinoumbilical line;
c. on the border between right external and middle parts of bispinal line;
d. superolateral surface of gluteal region.

40. What kind of manipulation is usually applied for diagnostics of abdominal cavity pathology in women?

a. perineotomy;
b. perineostomy;
c. puncture of abdominal cavity through posterior vaginal fornix;
d. puncture of abdominal cavity through rectum.

41. What space is needled at puncture of abdominal cavity through posterior vaginal fornix?

a. vesicouterine pouch;
b. rectouterine pouch;
c. vesicorectal pouch;
d. vesicovaginal pouch.

42. Name the indications for paracentesis of urinary bladder.

a. acute retention of urine at impossibility to apply catheterization;
b. cystic calculus;
c. phlegmonous cystitis;
d. ulcerative cystitis;
e. traumatic urethritis.

43. Name the indications for cystotomy.

a. foreign bodies;
b. puncture of abdominal cavity through posterior wall of urinary bladder;
c. cystic calculus;
d. operative approach for draining of abscess of Douglas cul-de-sac;
e. operative approach for prostate.

44. State stages of cystotomy.

a. preliminary section of veins;
b. application of two ligatures;
c. puncture of urinary bladder between two ligatures;
d. longitudinal section of muscular wall;
e. section of mucous tunic.

45. What kinds of approaches to prostate do you know?

a. transvesical;
b. transvaginal;
c. transurethral;
d. perineal;
e. retropubic extravesical.

46. What kinds of operations are usually used in case of hydrocele?

a. Klyap operation;
b. Bergman operation;
c. Bassini operation;
d. Milligan-Morgan operation;
e. Vinkelman operation.

47. What kinds of hemorrhoid do you know?

a. anterior and posterior;
b. external and internal;
c. oblique and straight;
d. lateral and medial;
e. superior and inferior.

48. What kinds of operations for hemorrhoid do you know?

a. Klyap operation;
b. Ryzhikh's operation;
c. Bassini operation;
d. Milligan-Morgan operation;
e. Vinkelman operation.

49. Name the incision which is usually done at Milligan-Morgan operation.

a. ellipsoid with central section of mucous tunic;
b. oval;
c. half-round;
d. circular;
e. crucial.

50. What kinds of operations can be done at malignant neoplasms of rectum.

a. palliative;

b. radical;
c. urgent;
d. delayed.

51. State radical operations at malignant neoplasms of rectum.

a. sphincteropreserving;
b. anusopreserving;
c. anusononpreserving;
d. sphincterononpreserving.

Correct answers on topic 9

1. a
2. a, c
3. e
4. a, d, e
5. a
6. a, b
7. a, c, e
8. b
9. c
10. d
11. b
12. a, b, c, e
13. a, b, d, e
14. a, c, d, e
15. b, c, d
16. c
17. a
18. a, b
19. a, b, d, e, f, g
20. b, c, g
21. a, b, c, e
22. a, b, c, d, f, g
23. b, d, g
24. a, d, f
25. a, b, c, d
26. a, c, d, e
27. c
28. b, c
29. a
30. a, b, c
31. e
32. a, b
33. a, c, d, e
34. c
35. a, b, d
36. a, b, c, d
37. b, c, d, e
38. b, d
39. a
40. c
41. b
42. a
43. a, c, e
44. b, d, e
45. a, c, d, e
46. a, b, e
47. b
48. b, d
49. a
50. a, b
51. a, d

Topic 10

TOPOGRAPHIC ANATOMY OF UPPER AND LOWER EXTREMITIES

1. State anterior wall of the axilla.
a. great and small pectoral muscles;
b. subscapularis, teres major and latissimus dorsi;
c. serratus anterior muscle;
d. humerus, coracobrachialis and short head of the biceps.

2. State posterior wall of the axilla.
a. great and small pectoral muscles;
b. subscapularis, teres major and latissimus dorsi;
c. serratus anterior muscle;
d. humerus, coracobrachialis and short head of the biceps.

3. What diseases are most typical for the skin of axilla?
a. hydradenitis;
b. trophic ulcer;
c. furuncle;
d. eczema;
e. psoriasis.

4. Name interrelation of axillary vein and axillary artery in clavipectoral triangle of the axilla.
a. vein lies higher and laterally;
b. vein lies higher and
c. vein lies lower and medially;
d. vein lies lower and laterally.

5. Name interrelation of brachial plexus and axillary artery in clavipectoral triangle of the axilla.
a. plexus lies higher and laterally;
b. plexus lies higher and
c. plexus lies lower and medially;
d. plexus lies lower and laterally.

6. Name the branches of lateral fascicle of brachial plexus.
a. median nerve;
b. radial nerve;
c. musculocutaneous nerve;
d. ulnar nerve;

e. medial cutaneous nerve of arm;
f. medial cutaneous nerve of forearm.

7. Name the branches of medial fascicle of brachial plexus.

a. median nerve;
b. radial nerve;
c. musculocutaneous nerve;
d. ulnar nerve;
e. medial cutaneous nerve of arm;
f. medial cutaneous nerve of forearm.

8. Name the branches of posterior fascicle of brachial plexus.

a. median nerve;
b. radial nerve;
c. musculocutaneous nerve;
d. ulnar nerve;
e. medial cutaneous nerve of arm;
f. medial cutaneous nerve of forearm.

9. What are the boundaries of triangular foramen?

a. subscapularis;
b. teres major;
c. long head of the biceps;
d. surgical neck of the humerus;
e. long head of the triceps.

10. What are the boundaries of quadrangular foramen?

a. subscapularis;
b. teres major;
c. long head of the biceps;
d. surgical neck of the humerus;
e. long head of the triceps.

11. State the contents of quadrangular foramen.

a. axillary artery;
b. axillary nerve;
c. circumflex scapular artery;
d. anterior circumflex humeral vessels;
e. posterior circumflex humeral vessels.

12. State the contents of triangular foramen.

a. axillary artery;
b. axillary nerve;
c. circumflex scapular artery;

d. anterior circumflex humeral vessels;
e. posterior circumflex humeral vessels.

13. What branches arise from the axillary artery in clavipectoral triangle?
a. superior thoracic artery;
b. thoracoacromial artery;
c. lateral thoracic artery;
d. subscapular artery;
e. anterior circumflex humeral artery;
f. posterior circumflex humeral artery.

14. What branches arise from the axillary artery in pectoral triangle?
a. superior thoracic artery;
b. thoracoacromial artery;
c. lateral thoracic artery;
d. subscapular artery;
e. anterior circumflex humeral artery;
f. posterior circumflex humeral artery.

15. What branches arise from the axillary artery in pectoral triangle?
a. superior thoracic artery;
b. thoracoacromial artery;
c. lateral thoracic artery;
d. subscapular artery;
e. anterior circumflex humeral artery;
f. posterior circumflex humeral artery.

16. What bursae related to the shoulder joint do you know?
a. intertubercular;
b. subacromial;
c. subscapular;
d. subcoracoid;
e. infraspinatus.

17. What recesses related to the shoulder joint do you know?
a. intertubercular;
b. subacromial;
c. subscapular;
d. subcoracoid;
e. axillar.

18. Name skin nerves of the arm region.
a. intercostobrachial nerve;
b. anterior cutaneous nerve of arm;
c. medial cutaneous nerve of the arm;

d. upper lateral cutaneous nerve of the arm;
e. lower lateral cutaneous nerve of the arm;
f. posterior cutaneous nerve of arm.

19. By what muscles is the deep layer of the arm anterior surface presented?
a. biceps muscle;
b. triceps muscle;
c. coracobrachialis;
d. brachialis.

20. What are the elements of neurovascular fascicle of the anterior surface of the arm?
a. axillary artery, nerve and vein;
b. profunda brachii artery, vein and radial nerve;
c. radial recurrent artery, vein and radial nerve;
d. ulnar artery, vein and nerve;
e. brachial artery, vein and median nerve.

21. What are the elements of neurovascular fascicle of the arm posterior surface?
a. axillary artery, nerve and vein;
b. profunda brachii artery, vein and radial nerve;
c. radial recurrent artery, vein and radial nerve;
d. ulnar artery, vein and nerve;
e. brachial artery, vein and median nerve.

22. What is the relation between median nerve and brachial artery in the upper third of the arm?
a. nerve is located laterally to the artery;
b. nerve is located medially to the artery;
c. nerve is located in front of the artery;
d. nerve is located behind the artery.

23. What is the relation between median nerve and brachial artery in the lower third of the arm?
a. nerve is located laterally to the artery;
b. nerve is located medially to the artery;
c. nerve is located in front of the artery;
d. nerve is located behind the artery.

24. Between what muscles is musculocutaneos nerve on the arm located?
a. biceps and triceps muscles;
b. triceps and coracobrachialis muscles;
c. coracobrachialis and brachialis muscles;
d. biceps and brachialis muscles.

25. Innervation of what muscles is disturbed at damage of musculocutaneos nerve in axillary region?

a. biceps muscle;
b. triceps muscle;
c. coracobrachialis;
d. brachialis.

26. Into` what branches is radial nerve in cubital fossa divided?

a. anterior and posterior;
b. medial and lateral;
c. superficial and deep;
d. superior and inferior.

27. What neurovascular fascicles of cubital fossa do you know?

a. axillary artery, nerve and vein;
b. profunda brachii artery, vein and radial nerve;
c. radial reccurent artery, vein and radial nerve;
d. ulnar artery, vein and nerve;
e. brachial artery, vein and median nerve.

28. How many muscular compartments are formed by deep fascia on the forearm?

a. one;
b. two;
c. three;
d. four;
e. five.

29. How many layers of muscles are located on anterior surface of the forearm?

a. one;
b. two;
c. three;
d. four;
e. five.

30. What muscles by function are situated in anterior compartment of the forearm?

a. flexors;
b. extensors;
c. pronators;
d. supinators.

31. What muscles by function are situated in posterior compartment of the forearm?

a. flexors;
b. extensors;
c. pronators;
d. supinators.

32. Between what layers of muscles is Pirogov-Paron fat space situated?

a. first and second;
b. second and third;
c. third and fourth;
d. fourth and fifth.

33. What structures pass through medial antebrachial canal?

a. ulnar artery;
b. radial artery;
c. median nerve;
d. ulnar nerve;
e. superficial branch of the radial nerve;
f. deep branch of the radial nerve.

34. What structures pass through lateral antebrachial canal?

a. ulnar artery;
b. radial artery;
c. median nerve;
d. ulnar nerve;
e. superficial branch of the radial nerve;
f. deep branch of the radial nerve.

35. State neurovascular fascicles of anterior compartment of the forearm.

a. ulnar artery, vein and nerve;
b. median artery, vein and nerve;
c. radial artery, vein and superficial branch of the radial nerve;
d. posterior interosseus artery, vein and deep branch of the radial nerve;
e. anterior interosseus artery, vein and nerve.

36. State neurovascular fascicles of posterior compartment of the forearm.

a. ulnar artery, vein and nerve;
b. median artery, vein and nerve;
c. radial artery, vein and superficial branch of the radial nerve;
d. posterior interosseus artery, vein and deep branch of the radial nerve;
e. anterior interosseus artery, vein and nerve.

37. How many layers of muscles are located on anterior surface of the forearm?

a. one;
b. two;
c. three;
d. four;
e. five.

38. What muscles are situated in lateral compartment of the forearm?

a. brachioradialis;
b. flexor digitorum superficialis;
c. radial flexor of wrist;
d. long radial extensors of wrist;
e. short radial extensors of wrist.

39. What hand bones take part in formation of wrist joint?

a. scaphoid bone;
b. lunate bone;
c. hamate bone;
d. capitate bone;
e. triquetral bone.

40. What structures pass through radial carpal canal?

a. median nerve;
b. ulnar vessels and nerve;
c. tendons of flexor digitorum superficialis and profundus;
d. radial vessels and nerve:
e. tendon of flexor pollicis longus;
f. tendon of flexor carpi radialis.

41. What structures pass through ulnar carpal canal?

a. median nerve;
b. ulnar vessels and nerve;
c. tendons of flexor digitorum superficialis and profundus;
d. radial vessels and nerve:
e. tendon of flexor pollicis longus;
f. tendon of flexor carpi radialis.

42. What structures pass through ulnar carpal canal?

a. median nerve;
b. ulnar vessels and nerve;
c. tendons of flexor digitorum superficialis and profundus;
d. radial vessels and nerve:
e. tendon of flexor pollicis longus;
f. tendon of flexor carpi radialis.

43. Name the structures passing superficially to the flexor retinaculum.

a. tendon of palmaris longus;
b. palmar cutaneous branch of median nerve;
c. palmar cutaneous branch of ulnar nerve;
d. flexor carpi ulnaris;
e. thenar muscles;
f. hypothenar muscles.

44. How many fascial compartments are located on the palmar surface of the hand?

a. one;
b. two;
c. three;
d. four;
e. five.

45. What structures are located in midpalmar space?

a. flexor tendons of the 3rd. 4th and 5th fingers;
b. tendon of the flexor pollicis longus, flexor tendons of the index finger, the first lumbrical muscle;
c. palmar digital vessels and nerves of the thumb and lateral side of the index finger;
d. 2nd, 3rd and 4th lumbrical muscles;
e. superficial palmar arch and the digital nerves and vessels of the medial three and a half fingers;
f. digital nerves and vessels of the lateral one and a half fingers.

46. What structures are located in thenar space?

a. flexor tendons of the 3rd. 4th and 5th fingers;
b. tendon of the flexor pollicis longus, flexor tendons of the index finger, the first lumbrical muscle;
c. palmar digital vessels and nerves of the thumb and lateral side of the index finger;
d. 2nd, 3rd and 4th lumbrical muscles;
e. superficial palmar arch and the digital nerves and vessels of the medial three and a half fingers;
f. digital nerves and vessels of the lateral one and a half fingers.

47. What structures are located in hypothenar space?

a. flexor tendons of the 3rd. 4th and 5th fingers;
b. tendon of the flexor pollicis longus, flexor tendons of the index finger, the first lumbrical muscle;
c. palmar digital vessels and nerves of the thumb and lateral side of the index finger;
d. 2nd, 3rd and 4th lumbrical muscles;

e. superficial palmar arch and the digital nerves and vessels of the medial three and a half fingers;
f. digital nerves and vessels of the lateral one and a half fingers.

48. What is U-shaped phlegmon?

a. purulent tendovaginitis of the 1^{st} and 5^{th} fingers;
b. purulent tendovaginitis of the 2^{st} and 4^{th} fingers;
c. purulent tendovaginitis of the 1^{st} and 3^{th} fingers;
d. purulent tendovaginitis of the 3^{st} and 5^{th} fingers;
e. purulent tendovaginitis of the 2^{st} and 5^{th} fingers.

49. How many osteofascial compartments are formed on the back of the wrist?

a. one;
b. two;
c. three;
d. four;
e. five;
f. six.

50. What structures are located in subaponeurotic dorsal space?

a. tendons of the extensor digitorum;
b. extensor indicis;
c. opponens policis brevis;
d. extensor digiti minimi;
e. extensor policis longus.

51. What forms of superficial whitlow do you know?

a. cutaneous;
b. subcutaneous;
c. subungual;
d. paraungual
e. bony;
f. articular;
g. tendovaginitis.

52. What forms of deep whitlow do you know?

a. cutaneous;
b. subcutaneous;
c. subungual;
d. paraungual
e. bony;
f. articular;
g. tendovaginitis.

53. State muscles of the second layer of gluteal region.

a. gluteus medius;
b. gluteus minimus;
c. piriformis;
d. obturator externus;
e. obturator internus;
f. quadratus femoris.

54. State muscles of the third layer of gluteal region.

a. gluteus medius;
b. gluteus minimus;
c. piriformis;
d. obturator externus;
e. obturator internus;
f. quadratus femoris.

55. What structures pass through suprapiriformis foramen from the small pelvis?

a. superior gluteal neurovascular fascicle;
b. inferior gluteal neurovascular fascicle;
c. pudendal nerve and internal pudendal vessels;
d. posterior cutaneous nerve of thigh;
e. sciatic nerve.

56. What structures pass through infrapiriformis foramen from the small pelvis?

a. superior gluteal neurovascular fascicle;
b. inferior gluteal neurovascular fascicle;
c. pudendal nerve and internal pudendal vessels;
d. posterior cutaneous nerve of thigh;
e. sciatic nerve.

57. State the ways of pus distribution from fat in gluteal region between the first and the second layers of muscles.

a. into lateral fat space of the pelvis;
b. into fat space of ischiorectal fossa;
c. into retroperitoneal space;
d. into fat space of back of thigh;
e. into fat space of medial side of thigh.

58. State the projection of Nelaton's line.

a. line is obtained by joining the tip of the greater trochanter to the posterior superior iliac spine;
b. line is obtained by joining the tip of the greater trochanter to the anterior superior iliac spine;

c. line is obtained by joining the anterior inferior iliac spine to the ischial tuberosity;
d. line is obtained by joining the anterior superior iliac spine to the ischial tuberosity.

59. State the projection of Schoemaker's line.

a. line is obtained by joining the tip of the greater trochanter to the posterior superior iliac spine;
b. line is obtained by joining the tip of the greater trochanter to the anterior superior iliac spine;
c. line is obtained by joining the anterior inferior iliac spine to the ischial tuberosity;
d. line is obtained by joining the anterior superior iliac spine to the ischial tuberosity.

60. By what structures is the muscular lacuna bounded?

a. inguinal ligament;
b. caxal bone;
c. pectineal ligament;
d. lacunar ligament;
e. iliopectineal arch;
f. femoral vein.

61. By what structures is the vasorum lacuna bounded?

a. inguinal ligament;
b. caxal bone;
c. pectineal ligament;
d. lacunar ligament;
e. iliopectineal arch;
f. femoral vein.

62. What structures pass through the muscular lacuna?

a. femoral artery;
b. femoral nerve;
c. femoral vein;
d. lateral cutaneous nerve of the thigh;
e. iliopsoas muscle;
f. femoral branch of genitofemoral nerve.

63. What structures pass through the vasorum lacuna?

a. femoral artery;
b. femoral nerve;
c. femoral vein;
d. lateral cutaneous nerve of the thigh;

e. iliopsoas muscle;
f. femoral branch of genitofemoral nerve.

64. By what structures is the femoral ring bounded?

a. inguinal ligament;
b. caxal bone;
c. pectineal ligament;
d. lacunar ligament;
e. iliopectineal arch;
f. femoral vein.

65. Name the walls of femoral canal.

a. femoral vein;
b. inguinal ligament;
c. adductor longus;
d. superficial layer of fascia lata;
e. deep layer of fascia lata.

66. What are the borders of femoral triangle?

a. adductor magnus;
b. adductor longus;
c. sartorius;
d. inguinal ligament;
e. iliopsoas.

67. State the contents of femoral triangle.

a. femoral artery;
b. femoral nerve;
c. femoral vein;
d. sciatic nerve;
e. tibial nerve.

68. Name the syntopy of neurovascular fascicle in femoral triangle from lateral side to medial.

a. femoral artery, femoral nerve, femoral vein;
b. femoral vein, femoral artery, femoral nerve;
c. femoral nerve, femoral artery, femoral vein;
d. femoral nerve, femoral vein femoral artery;
e. femoral artery, femoral vein, femoral nerve.

69. What branches pass from femoral artery in femoral triangle?

a. superficial external pudendal artery;
b. superficial epigastric artery;
c. superior epigastric artery;
d. superficial circumflex iliac artery;

e. profunda femoris artery;
f. deep external pudendal artery.

70. State the walls of adductor canal.

a. vastus medialis;
b. vastus intermedius;
c. adductor magnus;
d. adductor longus;
e. vastoadductoria membrane.

71. State the contents of adductor canal.

a. femoral artery;
b. profound femoral artery;
c. femoral vein;
d. saphenous nerve;
e. femoral nerve.

72. What structures leave the adductor canal through by piercing the fibrous roof?

a. femoral artery;
b. femoral nerve;
c. femoral vein;
d. saphenous nerve;
e. descending genicular artery.

73. State the walls of obturator canal.

a. obturator muscles;
b. obturator groove of horizontal branch of pubic bone;
c. adductor magnus;
d. obturator membrane;
e. vastoadductoria membrane.

74. State the contents of obturator canal.

a. femoral artery;
b. obturator artery;
c. obturator vein;
d. saphenous nerve;
e. obturator nerve.

75. What are the terminal branches of sciatic nerve?

a. tibial nerve;
b. saphenous nerve;
c. obturator nerve;
d. femoral nerve;
e. common peroneal nerve.

76. State the borders of popliteal fossa.

a. biceps femoris;
b. semitendinosus;
c. semimembranosus;
d. tibialis posterior;
e. gastrocnemius.

77. What is the floor of popliteal fossa?

a. patella;
b. popliteal surface of the femur;
c. popliteal fascia;
d. capsule of the knee joint;
e. popliteus muscle.

78. Name the elements of neurovascular fascicle in popliteal fossa.

a. popliteal artery;
b. popliteal vein;
c. great saphenous vein;
d. poplital nerve;
e. tibial nerve;
f. common peroneal nerve.

79. By what bones is the knee joint formed?

a. femur;
b. fibula;
c. tibia;
d. talus;
e. patella.

80. What are the intraarticular ligaments of the knee joint?

a. posterior cruciate ligament;
b. tibial collateral ligament;
c. fibular collateral ligament;
d. anterior cruciate ligament;
e. oblique popliteal ligament;
f. arcuate popliteal ligament.

81. What are the extraarticular ligaments of the knee joint?

a. posterior cruciate ligament;
b. tibial collateral ligament;
c. fibular collateral ligament;
d. anterior cruciate ligament;
e. oblique popliteal ligament;
f. arcuate popliteal ligament.

82. Into what compartments is the leg divided by anterior and posterior intermuscular septa of deep fascia?

a. anterior;
b. posterior;
c. superior;
d. inferior;
e. medial;
f. lateral.

83. What muscles are located in anterior compartment of the leg?

a. tibialis anterior;
b. peroneus longus;
c. peroneus brevis;
d. extensor hallucis longus;
e. extensor digitorum longus.

84. What muscles are located in lateral compartment of the leg?

a. tibialis anterior;
b. peroneus longus;
c. peroneus brevis;
d. extensor hallucis longus;
e. extensor digitorum longus.

85. State superficial muscles of posterior compartment of the leg.

a. gastrocnemius;
b. soleus;
c. popliteus;
d. plantaris;
e. tibialis posterior.

86. State deep muscles of posterior compartment of the leg.

a. popliteus;
b. plantaris;
c. flexor digitorum longus;
d. flexor hallucis longus;
e. tibialis posterior.

87. By what structures is basic neurovascular fascicle of anterior surface of the leg formed?

a. anterior tibial artery;
b. posterior tibial artery;
c. anterior tibial vein;
d. posterior tibial vein;
e. deep peroneal nerve;
f. tibial nerve.

88. By what structures is basic neurovascular fascicle of posterior surface of the leg formed?

a. anterior tibial artery;
b. posterior tibial artery;
c. anterior tibial vein;
d. posterior tibial vein;
e. deep peroneal nerve;
f. tibial nerve.

89. Name the walls of superior musculo-peroneal canal.

a. fibula;
b. flexor hallucis longus;
c. tibialis posterior;
d. flexor digitorum longus;
e. soleus;
f. peroneus longus.

90. Name the walls of inferior musculo-peroneal canal.

a. fibula;
b. flexor hallucis longus;
c. tibialis posterior;
d. flexor digitorum longus;
e. soleus;
f. peroneus longus.

91. Name the walls of cruro-popliteal canal.

a. fibula;
b. flexor hallucis longus;
c. tibialis posterior;
d. flexor digitorum longus;
e. soleus;
f. peroneus longus.

92. What structures pass through inferior musculo-peroneal canal?

a. common peroneal nerve;
b. superficial peroneal nerve;
c. deep peroneal nerve;
d. peroneal artery;
e. posterior tibial artery.

93. What structures pass through cruro-popliteal canal?

a. tibial nerve;
b. posterior tibial vein;
c. deep peroneal nerve;

d. peroneal artery;
e. posterior tibial artery.

94. What structures pass under cover of the extensor retinacula of ankle region?

a. tendon of tibialis anterior;
b. tendon of tibialis posterior;
c. tendon of extensor hallucis longus;
d. tendon of extensor digitorum longus;
e. anterior tibial artery;
f. deep peroneal nerve.

95. What structures pass under cover of the peroneal retinacula of ankle region?

a. anterior tibial artery;
b. tendon of tibialis posterior;
c. tendon of extensor hallucis longus;
d. tendon of peroneus longus;
e. tendon of peroneus brevis;
f. deep peroneal nerve.

96. What structures pass under cover of the flexor retinacula of ankle region?

a. tendon of tibialis anterior;
b. tendon of tibialis posterior;
c. tendon of fleexor hallucis longus;
d. posterior tibial artery;
e. tendon of flexor digitorum longus;
f. tibial nerve.

97. State lateral ligaments of the ankle joint.

a. deltoid ligament;
b. anterior talofibular ligament;
c. posterior talofibular ligament;
d. calcaneofibular ligament;
e. interosseus tibiofibular ligament.

98. By what nerves is skin of dorsum of the foot supplied?

a. superficial peroneal nerve;
b. lateral plantar nerve;
c. medial plantar nerve;
d. sural nerve;
e. saphenous nerve;
f. deep peroneal nerve.

99. By what nerves is skin of the foot sole supplied?

a. superficial peroneal nerve;
b. lateral plantar nerve;
c. medial plantar nerve;
d. sural nerve;
e. saphenous nerve;
f. deep peroneal nerve.

100. Name branches of dorsal artery of the foot.

a. lateral tarsal artery;
b. medial tarsal branches;
c. arcuate artery;
d. plantar metatarsal arteries;
e. dorsal metatarsal artery I.

101. State muscles of the first layer of the foot sole.

a. flexor hallucis brevis;
b. flexor digitorum brevis;
c. abductor hallucis;
d. interosseus muscles;
e. tendon of flexor digitorum longus;
f. abductor digiti minimi.

102. State muscles of the second layer of the foot sole.

a. tendon of flexor digitorum longus;
b. umbrical muscles;
c. abductor digiti minimi;
d. flexor digitorum brevis;
e. tendon of flexor hallucis longus;
f. flexor digitorum accessorius.

103. State muscles of the first layer of the foot sole.

a. flexor hallucis brevis;
b. abductor hallucis;
c. flexor digiti minimi brevis;
d. tendon of flexor digitorum longus;
e. tendon of flexor hallucis longus;
f. adductor hallucis.

104. State muscles of the first layer of the foot sole.

a. adductor hallucis;
b. interosseus muscles;
c. abductor digiti minimi;
d. tendons of tibialis posterior;

e. tendon of peroneus longus;
f. flexor digitorum accessorius.

105. What structures are located in the calcaneal canal?

a. medial and lateral plantar arteries and veins;
b. tendon of flexor hallucis longus;
c. tendon of tibialis posterior;
d. tendon of flexor digitorum longus;
e. calcaneal vessels and nerves.

Correct answers on topic 10

1. a
2. b
3. b, c
4. c
5. a
6. a, c
7. a, d, e, f
8. b
9. a, b, d, e
10. a, b, e
11. b, e
12. c
13. a, b
14. c
15. d, e, f
16. b, c, d, e
17. a, c, e
18. a, c, d, e, f
19. c, d
20. e
21. b
22. a
23. b
24. d
25. a, c, d
26. c
27. c, e
28. c
29. d
30. a, c
31. b, d
32. c
33. a, d
34. b, e
35. a, b, c, e
36. d
37. b
38. a, d, e
39. a, b, c
40. f
41. b
42. a, c, e
43. a, b, c
44. c
45. a, d, e
46. b, c
47. f
48. a
49. f
50. a, b, d
51. a, b, c, d
52. e, f, g
53. a, c, e, f
54. b, d
55. a
56. b, c, d, e
57. a, b, d, e
58. d
59. b
60. a, b, e
61. a, c, d, e
62. b, d, e
63. a, c, f
64. a, c, d, f
65. a, d, e
66. b, c, d
67. a, b, c
68. c
69. a, b, d, e, f
70. a, c, e
71. a, c, d
72. d, e
73. a, b, d
74. b, c, e
75. a, e
76. a, b, c, e
77. b, d, e
78. a, b, e
79. a, c, e
80. a, d
81. b, c, e, f
82. a, b, f
83. a, d, e
84. b, c
85. a, b, d
86. a, c, d, e
87. a, c, e
88. b, d, f
89. a, f
90. a, b, c
91. b, c, d, e
92. d
93. a, b, e
94. a, c, d, e, f
95. d, e
96. b, c, d, e, f
97. b, c, d
98. a, d, e, f
99. b, c
100. a, b, c, e
101. b, c, f
102. a, b, c, f
103. a, c, f
104. b, d, e
105. a, b, d

Topic 11

OPERATIONS ON VESSELS, NERVES, TENDONS, BONES AND JOINTS OF EXTREMITIES

1. What kinds of hemorrage may be distinguished depending on the site of bleeding?

a. tissue hemorrhage;
b. external hemorrhage;
c. internal hemorrhage;
d. acute hemorrhage;
e. chronic hemorrhage.

2. By what temporary control of bleeding is usually performed?

a. application of tourniquet;
b. ligation of the vessel;
c. suture of the vessel;
d. digital occlusion of the vessel in the wound;
e. clipping the vessel.

3. What time in summer is allowed to hold tourniquet?

a. not more than 2 hours;
b. not more than 1 hour;
c. not more than 3 hour;
d. not more than 5 hour;
e. not more than 4 hour.

4. What time in winter is allowed to hold tourniquet?

a. not more than 2 hours;
b. not more than 1 hour;
c. not more than 3 hour;
d. not more than 5 hour;
e. not more than 4 hour.

5. Name the typical site of compressing of the brachial artery.

a. to the 1st rib;
b. to the biceps;
c. to the medial side of the humeral bone;
d. to the lateral side of the humeral bone;
e. to the clavicle.

6. Name the typical site of compressing of the subclavian artery.

a. to the 1st rib;
b. to the biceps;

c. to the medial side of the humeral bone;
d. to the lateral side of the humeral bone;
e. to the clavicle.

7. State methods of constant bleeding control.

a. mechanical;
b. physical;
c. physiological;
d. chemical;
e. biological.

8. What are the indications for vessel ligation in the course?

a. when bleeding is from the region which is hard to reach;
b. when the injury is from superficial vessels;
c. in repeated bleeding and danger of bleeding from infectious wound;
d. when high exarticulation is performed;
e. when amputation is performed because of gas gangrene.

9. How many ligatures are applied on proximal end of the artery for the vessel ligation in wounds?

a. one;
b. two;
c. three;
d. four;
e. five.

10. Where is the best level of ligation of the axillary artery located?

a. distally to superior thoracic artery;
b. proximally up to superior thoracic artery;
c. distally to subscapular artery;
d. proximally up to subscapular artery;
e. distally to the deep brachial artery.

11. State the requirements to vessels' sutures.

a. they should be strong;
b. they should be hermetic;
c. there should be no stenosis of the vessel lumen in the zone of suture;
d. knot should be inside the vessel;
e. the ends of the vessel should be connected by intima;
f. there should be no suture material in the lumen of the vessel.

12. Name the classification of vessels' sutures according to their circumference.

a. lateral;
b. manual;
c. medial;

d. mechanical;
e. circular.

13. Name the classification of vessels' sutures according to the approach.
a. lateral;
b. manual;
c. medial;
d. mechanical;
e. circular.

14. Who was the first surgeon applying vessel's suture?
a. Morozova;
b. Sapozhnikov;
c. Solovyov;
d. Schmieden;
e. Carrel.

15. What kinds of reconstructive operations on vessels do you know?
a. operations in varix dilatation of veins;
b. bypass operations;
c. desobliterating operations;
d. plastic operations.

16. What kinds of desobliterating operations on vessels do you know?
a. thrombectomy;
b. embolectomy;
c. autoplastic transplantation;
d. alloplastic transplantation;
e. trombendarterectomy;
f. xenoplastic transplantation.

17. What kinds of plastic operations on vessels do you know?
a. thrombectomy;
b. embolectomy;
c. autoplastic transplantation;
d. alloplastic transplantation;
e. trombendarterectomy;
f. xenoplastic transplantation.

18. What kinds of thrombectomy depending on the technique of removal do you know?
a. direct;
b. indirect;
c. radical;

d. paliative;
e. transcutaneous.

19. Into what groups existing methods of treatment for the varix dilatation of veins of the lower limbs can be divided?
a. surgical;
b. conservative;
c. sclerotherapy;
d. mechanical;
e. biological.

20. Into what groups surgical methods of treatment for the varix dilatation of veins of the lower limbs can be divided?
a. stripping operations;
b. ligature operations;
c. venous valve formation;
d. trombendarterectomy;
e. plasty of veins.

21. State operations with ligation of a varicose vein of the lower limbs.
a. by Madelung;
b. by Troyanov-Trendelenburg;
c. by Babckock;
d. by Kockett;
e. by Narate;
f. by Linthon.

22. State stripping operations for the varix dilatation of veins of the lower limbs.
a. by Madelung;
b. by Troyanov-Trendelenburg;
c. by Babckock;
d. by Kockett;
e. by Narate;
f. by Linthon.

23. Name the operation for removal of varix dilatatated great saphenous vein on the hip by means of special director.
a. by Madelung;
b. by Troyanov-Trendelenburg;
c. by Babckock;
d. by Kockett;
e. by Narate;
f. by Linthon.

24. 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 Narate;
f. by Linthon.

25. What kinds of aneurysms of magistral vessels do you know?

a. central;
b. marginal;
c. true;
d. dissecting;
e. false.

26. What kinds of closed injuries of nerves depending on the character of morphological changes do you know?

a. commotio;
b. contusio;
c. compressio;
d. luxatio;
e. distorsio.

27. After what types of regeneration will be the function of the nerve restored?

a. true;
b. heterotopic;
c. hypertrophic;
d. heterogeneous.

28. After what type of regeneration will not be the function of nerve restored?

a. true;
b. heterotopic;
c. hypertrophic;
d. heterogeneous.

29. What kinds of suture of a nerve according to the time of performance do you know?

a. early delayed;
b. late delayed;
c. epineural;
d. perineural;
e. primary.

30. What kinds of suture of a nerve according to the technique of suturing do you know?

a. early delayed;
b. late delayed;
c. epineural;
d. perineural;
e. primary.

31. What diastasis should remain between the ends of a nerve while suturing?

a. 1 cm;
b. 1 mm;
c. 5 cm;
d. 5 mm;
e. should not be diastasis.

32. What kinds of tendon suture do you know?

a. early delayed;
b. late delayed;
c. epineural;
d. perineural;
e. primary.

33. State the requirements to tendon sutures.

a. should be strong.;
b. shouldn't involve much tissue and shouldn't involve little tissue;
c. should be hermetic;
d. knot should be inside the tendon;
e. fascial and synovial sheath should be sutured.

34. Name the operation directed on the opening of joint cavity.

a. arthrotomy;
b. arthrolysis;
c. arthrorisis;
d. arthrodesis;
e. arthroplasty.

35. Name the operation directed to mobilize an immobile joint.

a. arthrotomy;
b. arthrolysis;
c. arthrorisis;
d. arthrodesis;
e. arthroplasty.

36. Name the operation directed to restriction of the amplitude of movement or mobility in the joint.

a. arthrotomy;

b. arthrolysis;
c. arthrorisis;
d. arthrodesis;
e. arthroplasty.

37. State stages of conservative treatment of fractures.
a. surgical approach;
b. reposition;
c. osteosynthesis;
d. immobilization;
e. rehabilitation.

38. State stages of conservative treatment of fractures.
a. surgical approach;
b. reposition;
c. osteosynthesis;
d. immobilization;
e. rehabilitation.

39. What groups of fractures are treated only by operative method?
a. closed;
b. open;
c. avulsion fractures of bone processes;
d. fractures, accompanied with the damage of vessels and nerves;
e. intaarticular fractures with rotation of bone fragments;
f. fractures with interposition of muscular tissue.

40. What kinds of osteosynthesis do you know?
a. extramedullary;
b. partial;
c. intramedullary;
d. complete;
e. compressive-distractive.

41. What types of osteoplasty are distinguished?
a. autoplasty;
b. blepharoplasty;
c. alloplasty;
d. xenoplasty;
e. prosthetics.

42. What types of bone resection by extent are distinguished?
a. partial;
b. extended;
c. transperiosteal;
d. complete;

e. subperiosteal.

43. What types of bone resection by technique are distinguished?

a. partial;
b. extended;
c. transperiosteal;
d. complete;
e. subperiosteal.

44. What types of osteotomy by purpose are distinguished?

a. correcting;
b. closed;
c. open;
d. oblique;
e. lengthening.

45. What types of osteotomy by technique are distinguished?

a. correcting;
b. closed;
c. open;
d. oblique;
e. lengthening.

46. State indications to primary amputations.

a. fourth-degree burn and frostbite;
b. total extremity avulsion;
c. vicious amputation stump;
d. malignant tumors;
e. gas gangrene;
f. wrong level of previous amputation.

47. State indications to secondary amputations.

a. acute purulent inflammation with danger of sepsis;
b. total extremity avulsion;
c. vicious amputation stump;
d. malignant tumors;
e. gas gangrene;
f. wrong level of previous amputation.

48. State indications to reamputations.

a. acute purulent inflammation with danger of sepsis;
b. total extremity avulsion;
c. vicious amputation stump;
d. malignant tumors;

e. gas gangrene;
f. wrong level of previous amputation.

49. Name amputations according to the time of performance.
a. circular;
b. fascioplastic;
c. primary;
d. secondary;
e. osteoplastic;
f. ellipsoidal.

50. Name amputations according to the shape of incision.
a. circular;
b. fascioplastic;
c. primary;
d. flapped;
e. osteoplastic;
f. ellipsoidal.

51. What kinds of circular amputations do you know?
a. single-staged;
b. two-staged;
c. three-staged;
d. flapped;
e. guillotine;
f. ellipsoidal.

52. Name amputations according to the cover of the bone.
a. mioplastic;
b. fascioplastic;
c. primary;
d. flapped;
e. osteoplastic;
f. tendoplastic.

53. What is the level of amputation?
a. site of bone section;
b. site of soft tissue section;
c. site of muscle section;
d. site of nerves and vessels section.

54. In what cases application of tourniquet is contraindicated?
a. dry gangrene;
b. fourth-degree burn;
c. gas gangrene;

d. acquired deformations;
e. high injury of thigh.

55. What ways of processing of periosteum do you know?
a. aperiostal;
b. subperiostal;
c. transperiostal;
d. supraperiostal;
e. extraperiostal.

56. How many ligatures are applied on large arteries at amputations?
a. one;
b. two;
c. three;
d. four;
e. five.

57. At what distance above the level of amputation should the nerve be cut?
a. 0-1 cm;
b. 0-1 mm;
c. 2-3 cm;
d. 4-5 cm;
e. 4-5 mm.

58. What kinds of prostheses do you know?
a. hygienic;
b. cosmetic;
c. working;
d. myotonic;
e. bioelectric.

59. What kinds of superficial whitlow do you know?
a. cutaneous;
b. bony;
c. subcutaneous;
d. articular;
e. subungual;
f. paraungual.

60. What kinds of deep whitlow do you know?
a. cutaneous;
b. bony;
c. subcutaneous;
d. articular;
e. subungual;
f. tendovaginitis.

Correct answers on topic 11

1. a, b, c
2. a, d, e
3. a
4. b
5. c
6. a
7. a, b, d, e
8. a, c, d, e
9. b
10.d
11.b, c, e, f
12.a, e
13.b, d
14.e
15.b, c, d
16.a, b, e
17.c, d, f
18.a, b
19.a, b, c
20.a, b, c, e
21.b, d, f
22.a, c, e
23.c
24.f
25.c, d, e
26.a, b, c, d, e
27.a, b
28.d
29.a, b, e
30.c, d
31.b
32.a, b, e
33.a, b, d, e
34.a
35.e
36.c
37.b, d, e
38.a, b, c, d, e
39.b, c, d, e, f
40.a, c, e
41.a, c, d, e
42.a, b, d
43.c, e
44.a, e
45.b, c
46.a, c
47.a, d, e
48.c, f
49.c, d
50.a, d, f
51.a, b, c, e
52.a, b, e, f
53.a
54.c, e
55.a, b, c
56.b
57.d
58.b, c, d, e
59.a, c, e, f
60.b, d, f

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