Раздел: **Текущий рубежный контроль по разделу 1 (англ)**

Модуль: **Топографическая анатомия и оперативная хирургия**

Тема: **Текущий рубежный контроль по разделу 1 (англ)**

1. The stages of the operation, as a technological process, are:

1) ☐ Dissection of the serous membrane

2) ☑ Operative approach

3) ☐ Hemostasis in the wound

4) ☑ Operational reception

5) ☑ Completion of the operation - closure of the surgical wound

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2. In open operations (with the formation of a surgical wound), the following types of surgical accesses are used:

1) ☑ Straight (along the line of projection of the organ)

2) ☑ Non-projected

3) ☐ Oblique

4) ☑ Projection

5) ☑ Indirect (away from the projection line of the organ)

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3. Endosurgical operations can be performed by:

1) ☐ Cranial trepanation (craniotomy)

2) ☑ Thoracic and laparoscopy

3) ☑ Hysteroscopy

4) ☐ Exposures of muscles, tendons, arteries, veins, nerves

5) ☑ Endovascular (intravascular) access

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4. The basic rules of surgical incision are:

1) ☐ To ensure the straightness of the incision
2) ☑ Strict layer-by-layer separation of the area
3) ☑ Each layer of the region is separated perpendicular to its plane
4) ☑ Preliminary determination of the projection of the neurovascular bundle
5) ☐ Simultaneous dissection of the layers of the anterior shoulder region when accessing a.brachialis

5. Dissection of a layer of an area perpendicular to its plane is necessary for:

1) ☑ Eliminating the false idea of the thickness of its edges
2) ☐ Creating favorable conditions for visualization of the walls and bottom of the wound
3) ☑ Achieving careful edge matching when suturing
4) ☐ Ensuring hemostasis in the wound
5) ☐ Freedom of action by instruments in the wound

6. A surgical wound differs from a gunshot wound in that:

1) ☑ It is formed under aseptic conditions; heals by primary tension
2) ☑ Wound parameters are planned; layered separation of the area is used
3) ☐ A gauze swab is inserted
4) ☑ into the wound and has smooth "viable" edges
5) ☑ Thorough hemostasis is provided

7. The main (typical) operational techniques that make up the stages of an open operation are:

1) ☑ Separation of the layers of the area (organ)

2) ☐ Wound drainage

3) ☑ Hemostasis in the wound

4) ☑ Joining (suturing) the layers of the area (organ) and tying the knot (knots)

5) ☑ Removal of the skin suture

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8. Conditions defining the technique of the main (typical) surgical reception (according to N.I. Pirogov):

1) ☐ Sufficient illumination of the operating field

2) ☑ Type of pathological process

3) ☑ Anatomical structure of the organ (area)

4) ☑ Physiological characteristics of the organ (area)

5) ☐ The condition of the patient's cardiovascular system

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9. Rules for the treatment of the surgical field with an antiseptic solution:

1) ☑ The processing is as wide as possible in area

2) ☑ They are carried out from the center to the periphery

3) ☑ During the operation, the processing must be repeated

4) ☑ Compliance with the exposure time of the antiseptic solution

5) ☐ The rules for treating the surgical field with an antiseptic solution are of no fundamental importance

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10. The introduction of an anesthetic solution into the perineural tissue for the purpose of anesthesia is called anesthesia:

1) ☑ Conduction

2) ☑ Regional (blockade of the nerve innervating the area of surgery)

3) ☐ Blockade of nodes of the sympathetic trunk

4) ☐ Spinal anesthesia

5) ☐ Infiltration anesthesia by the method of "tight creeping" infiltration

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11. According to the technical design, operational access is assessed by the following indicators:

1) ☑ Approach should be the shortest with favorable conditions for action in the wound with surgical instruments and fingers

2) ☑ The possibility (if necessary) to expand the parameters of the wound (length, width, depth), especially in malignant tumors

3) ☑ Ensuring the requirements of asepticism and ablasticity

4) ☑ The possibility of giving the wound a geometric shape (for example, a truncated cone)

5) ☐ The need to expand the wound with a mechanical retractor

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12. The criterion for an objective assessment of operational access "the axis of operational action" is the line connecting:

1) ☐ The extreme points of the cut

2) ☐ The plane of the wound and its deepest point

3) ☑ The surgeon's eye

4) ☐ A plane in the depth of the wound, accessible to the surgeon's actions

5) ☑ The center of the place of operative action on the organ in the depth of the wound

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13. Indicators of the validity of the operation:

1) ☑ Anatomical accessibility

2) ☐ Duration of the operation

3)	☑	Physiological permissibility
4)	☐	Cosmetology
5)	☑	Technical capability

14. Operational technick is:

1)	☑	The essence of the surgical operation
2)	☐	Sufficient exposure of the organ-the object of the operation
3)	☑	The totality of the surgeon's actions at the operation site aimed at eliminating the pathological focus and recovering the patient (or alleviating his suffering and prolonging his life)
4)	☐	Ensuring the rules of asepsis
5)	☑	The main, decisive stage of the operation

15. Requirements for a surgical incision:

1)	☐	The shortest approach to the object of operational reception
2)	☑	Incision taking into account the position of the neurovascular bundle, the direction of the muscle bundles and fibers of aponeurosis
3)	☑	The cosmetology of the postoperative scar
4)	☑	Ensuring complete visualization of the wound
5)	☑	Minimal injury of organs during operative access

16. Conditions that create a decent overview (visualization) of the walls and bottom of the wound when operating in it with surgical instruments:

1)	☑	Sufficient dilution of the wound walls
2)	☑	Fixation of the walls and bottom of the wound

3)	☑	If possible, the wound should be "dry" (ensure thorough hemostasis, remove pathological fluid)
4)	☐	The direction of the incision along the course of the neurovascular bundle
5)	☑	Sufficient illumination of the wound

17. The advantage of variable surgical accesses is:

1)	☑	The cosmetology of the postoperative scar
2)	☐	The best conditions for wound drainage
3)	☑	Difficulty of infection penetration into the wound
4)	☑	Reducing the risk of postoperative hernia
5)	☐	The convenience of using surgical instruments

18. In the process of surgical intervention, the following groups of surgical instruments are used:

1)	☑	To separate the layers of the area and organs
2)	☑	To stop bleeding (hemostasis)
3)	☑	Fixing tools and special tools
4)	☑	To connect the layers of the area and the organ
5)	☐	Tools for limiting the operational field

19. Rules for the use of surgical instruments:

1)	☑	The instrument is used only for its intended purpose and in good condition
2)	☑	The operating hand should feel the working part of the instrument
3)	☐	The surgical instrument must have sufficient strength
4)	☑	All actions of the instruments are performed with smooth rhythmic movements based on the historical

experience of handling each of them

5) ☑ Take care of organs and tissues at all stages of surgical intervention

20. Layers, areas and organs are separated in the following ways:

1) ☑ They are dissected with cutting tools

2) ☑ They are separated in a blunt way

3) ☑ They are dissected with sawing tools and apparatuses

4) ☐ By hydraulic dissection

5) ☑ Using physical methods (electric knife, ultrasonic cutting, cryodestruction, laser and plasma "scalpels")

21. When making an incision, the scalpel in the hand is fixed in the position:

1) ☑ "Writing pen"

2) ☑ "Table knife"

3) ☐ The position of the scalpel in the brush does not matter

4) ☑ "Bow"

5) ☑ "In the fist" (for an amputation knife)

22. According to the time of application, the following surgical sutures are distinguished:

1) ☑ Primary

2) ☑ Initially delayed

3) ☐ The time of suturing does not matter

4) ☑ Secondary early

5) ☑ Secondary late

23. The angle of the scalpel blade and the surface of the layer when applying the incision is:

1) ☐ It does not matter

2) ☑ At the beginning of the incision - 90®

3) ☑ During the incision - 45®

4) ☑ At the end of the incision - 90®

5) ☐ During the incision - 180®

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24. The blood vessel in the wound is trapped by a hemostatic clamp. The 1st ligature knot is tied under the "spout" of the clamp. What are the next steps?

1) ☑ The clamp is being removed

2) ☑ Tie the 2nd knot

3) ☑ The 1st knot is finally tightened

4) ☐ The sequence of actions does not matter

5) ☐ A second clamp is applied

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25. The electric knife, laser and plasma "scalpels", in addition to disconnecting the parenchymal organ, provide:

1) ☐ Smooth edges of the organ wound

2) ☑ Hemostasis

3) ☑ Asepticism

4) ☑ Ablasticity

5) ☐ Sufficient visualization of the wound

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26. What should I make sure of before suturing a surgical wound?

1) ☐ Is there a sufficient overview of the bottom and walls of the wound

2) ☐ In the degree of contraction of the ends of the muscles

3) ☑ In the thoroughness of hemostasis

4) ☐ Is it possible to bring the edges of your own fascia closer together?

5) ☑ In the absence of accidentally left foreign bodies (gauze balls, napkins, surgical instruments)

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27. The basic rules for suturing a surgical wound include:

1) ☑ The wound is sutured from the bottom

2) ☑ The seams are applied in layers

3) ☑ The edges of the layer are sewn separately with the capture of the surface areas of the underlying layer

4) ☑ Interposition is unacceptable (the presence of an adjacent layer between the edges of the same name)

5) ☐ The rules for suturing a surgical wound do not matter

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28. A cutting (triangular) needle is used for the seam:

1) ☑ Periosteum (suprachondria)

2) ☑ Muscles

3) ☐ Liver

4) ☑ Own fascia (aponeurosis)

5) ☑ Skin with a subcutaneous base

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29. Round atraumatic needles are used for suture:

1) ☑ Arteries and veins

2) ☑ Parenchymal organs

3)	☐	Periosteum
4)	☑	Hollow organs of the digestive system and genitourinary system
5)	☑	Nerves

30. The disadvantages of twisted and braided suture material are:

1)	☑	Significant trauma to the walls of the ligature canal due to the "sawing" effect
2)	☑	The ability to be soaked in blood, tissue fluid due to wick (hygroscopic or capillary) properties
3)	☐	Failure to ensure the strength of the seam
4)	☑	The possibility of accumulation of tissue particles and blood clots in the recesses of the uneven surface of the ligature
5)	☑	More durable ingrowth into the scar

31. Name the complications of tight and weak tying of the skin suture knot

1)	☑	Marginal necrosis and suture failure
2)	☑	Divergence of the wound edges with subsequent infection
3)	☐	The mechanical load when tying the knot does not matter
4)	☑	Slowing down wound healing
5)	☑	Formation of a rough scar

32. The tasks of primary surgical wound treatment are:

1)	☑	Ensuring hemostasis
2)	☐	Intra-arterial antibiotic therapy
3)	☑	Prevention of wound infection

4) ☐ The formation of a counterpoint

5) ☑ Drainage of the wound with its suturing before drainage

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33. Technical aspects of primary surgical treatment of a limb wound with a large area of damage and a complex configuration:

1) ☑ Dissection of the wound and excision of its non-viable and contaminated tissues

2) ☑ Ensuring hemostasis

3) ☐ Using a controlled bacterial environment

4) ☑ Removal of free-lying foreign bodies and bone fragments devoid of periosteum and wound drainage

5) ☑ Immobilization of the limb

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34. The lower edges of the muscles are used as external landmarks for constructing the boundaries of the regio axillaris:

1) ☐ m. teres minor

2) ☐ subclavian

3) ☑ m. pectoralis major

4) ☐ spinous part of the deltoid

5) ☑ m. latissimus dorsi

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35. The fiber performing fossa axillaris contains:

1) ☑ a. et v. axillaris with their branches

2) ☐ n. phrenicus (CIII-CIV (CV)

3) ☑ terminal branches II-III intercostal nerves

4) ☑ plexus brachialis with nerves extending from it (CV-CVIII)

5) ☑ axillary lymph nodes

36. The subfascial axillary cellular space is limited by:

1) ☑ axillary fascia (from below)

2) ☑ fascia clavipectoralis (from spatium subpectorale)

3) ☑ from the neurovascular bundle (its fascial sheath)

4) ☑ closes the subfascial space fascial plate (from the sheath of the neurovascular bundle, connecting at the level of the II rib with the clavicular-thoracic fascia)

5) ☐ deltoid fascia

37. Through holes in the posterior wall of the axillary fossa, the subfascial cellular space communicates with:

1) ☐ spatium subpectorale

2) ☑ Subdeltoid space

3) ☐ anterior musculofacial bed of the shoulder

4) ☑ the subscapular space

5) ☐ the posterior musculofacial bed of the shoulder

38. The walls of the spatium subpectoralis superficialis are formed by:

1) ☐ the clavicle

2) ☑ of the fascia clavipectorale along the anterior surface of the pectoralis minor muscle

3) ☐ the coracobrachialis muscle

4) ☑ the deep plate of the thoracic fascia along the posterior surface of the m. pectoralis major

5) ☐ by the spine of the scapula

39. The deep subsectoral space in front and behind is limited by:

1) ☐ the pectoralis major muscle
2) ☑ the pectoralis minor muscle
3) ☐ the fascia of the coracobrachialis muscle
4) ☑ the deep leaf of the fascia fascia clavipectorale covering the chest wall
5) ☐ with the deltoid fascia

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40. The cellular space of the neurovascular bundle of the axillary fossa has features:

1) ☑ it is located inside the vagina of the bundle
2) ☑ it is bounded from above by the clavicle
3) ☑ formed by splitting the posterior wall of the fascial sheath of the coracobrachialis muscle
4) ☐ fixed to the fascia of the pectoral minor muscle
5) ☑ the axillary vein is separated by a septum from the artery of the same name and nerves (branches of the brachial plexus)

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41. The foramen quadrilaterum of the posterior wall of the axillary fossa is limited by:

1) ☑ the collum chirurgicum of the humerus
2) ☑ the long head of the triceps muscle of the shoulder
3) ☐ m. latissimus dorsi
4) ☑ m. teres major and m. latissimus dorsi
5) ☑ m. teres minor and m. subscapularis

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42. In the deltoid region, through the foramen quadrilaterum, pass:

1) ☐ axillary artery

2) ☑ arteria circumflexa humeri posterior and its accompanying two veins

3) ☐ subcapular artery and vein

4) ☑ axillary nerve (CV- CVIII)

5) ☐ lateral thoracic artery and two veins accompanying it

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43. The landmarks, in relation to which triangles are distinguished throughout the neurovascular bundle of the axillary region, are:

1) ☐ the head of the humerus

2) ☑ clavicula

3) ☐ processus coracoideus of the scapula

4) ☑ m. pectoralis major

5) ☑ m. pectoralis minor

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44. The isolation of the clavipectoralis, pectoralis and subpectoralis triangles throughout the neurovascular bundle of regio axillaris is associated with a difference in:

1) ☐ anatomical relationships v. cephalica with the large thoracic and deltoid muscles

2) ☑ of the composition of the neurovascular bundle

3) ☑ by the syntopia of the organs of the circulatory, lymphatic and nervous systems of the area

4) ☑ of the branches

5) ☑ of the anatomical relationships with the muscles of the anterior wall of fossa axillaris

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45. Branches of the brachial plexus located posteriorly from the axillary artery:

1) ☐ radix medialis n. medianus (CV-CVIII, ThI)

2) ☑ n. radialis (CV-CVIII, ThI)

3) ☐ n. ulnaris (CV-CVIII, ThI)

4) ☑ n. axillaris

5) ☐ musculocutaneous nerve (CV-CVIII)

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46. In trigonum pectorale to a. axillaris are adjacent:

1) ☑ anteriorly - pectoralis minor muscle

2) ☑ laterally-lateral bundle plexus brachialis

3) ☐ medial-medial saphenous vein of the arm

4) ☑ from behind - posterior bundle of the brachial plexus and m. subscapularis

5) ☑ medial-medial bundle of the brachial plexus and v. axillaris

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47. In trigonum subpectorale, in relation to the axillary artery, the branches of the brachial plexus are arranged as follows:

1) ☐ medial - radial nerve

2) ☑ lateral - musculocutaneous nerve

3) ☑ anteriorly - N. medianus, formed by the lateral and medial roots

4) ☑ of the medial - ulnar nerve and medial cutaneous nerves of the shoulder and forearm

5) ☑ posteriorly - axillary nerve

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48. Name the nerves that are not related to the lower fixed portion of the capsule of the shoulder joint (between the m. subscapularis from above and the tendon m. triceps brachii medially):

1) ☑ radial

2) ☑ ulnar

3) ☐ axillary

4) ☑ musculocutaneous

5) ☑ median

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49. Adjacent to the lateral wall of the foramen quadrilaterum (collum chirurgicum of the humerus) are:

1) ☐ scapular artery

2) ☐ n. radialis

3) ☑ n. axillaris

4) ☑ a. circumflexa humeri posterior

5) ☐ a. circumflexa scapulae

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50. A purulent process (or hematoma) from regio axillaris can spread to the following areas:

1) ☑ deltoid

2) ☑ scapular

3) ☑ anterior shoulder area

4) ☑ lateral neck area

5) ☐ anterior forearm area

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51. The projection line of the axillary artery corresponds to the following external landmarks:

1) ☑ the anterior border of axillary hair growth (according to N.I. Pirogov)

2) ☐ the lower edge of the pectoralis major muscle

3) ☐ the medial edge of the cranio-brachial muscle

4) ☑ the upward extension of sulcus bicipitalis medialis

5) ☑ the border of the anterior and middle thirds of the width of the axillary fossa

52. Branches from the a. subclavia basin participate in collateral blood circulation through the scapular anastomotic circle:

1) ☑ suprascapular artery is a branch of the thyroid trunk (I division of the subclavian artery)

2) ☐ truncus costocervicalis

3) ☑ superficial and deep branches of the transverse artery of the neck (III division a. subclavia)

4) ☐ vertebral artery

5) ☐ truncus thyrocervicalis

53. Axillary lymph nodes receive lymph from:

1) ☑ the mammary gland (medial, central and apical groups)

2) ☑ of the upper extremity (lateral group)

3) ☑ of the anterior, lateral and posterior chest walls and abdominal wall above the navel (medial group)

4) ☑ of the lower lateral neck region

5) ☐ of the umbilical region

54. The supraspinous bone-fibrous bed of the scapula is limited:

1) ☑ fossa supraspinata of the posterior surface of the scapula

2) ☐ by the acromion

3) ☑ of the spine of the scapula

4) ☑ by the supraspinatus fascia

5) ☐ by the neck of the scapula

55. The supraspinous bone-fibrous bed of the scapula contains:

1) ☐ trapezius muscle
2) ☑ supraspinatus muscle
3) ☑ supraspinatus cellular space (between the scapula and the supraspinatus muscle)
4) ☑ suprascapular artery with its accompanying veins
5) ☑ suprascapular nerve (CV-CVI)

56. The following are involved in the formation of the subacute bone-fibrous bed of the scapula:

1) ☐ deltoid muscle
2) ☑ fascia infraspinatus
3) ☑ spina scapulae
4) ☑ fossa infraspinatus of the posterior surface of the scapula
5) ☐ fascia of the deltoid muscle

57. The infrasinatus bone-fibrous bed of the scapula contains:

1) ☑ a. circumflexa scapulae
2) ☑ infraspinatus cellular space (between the scapula and the subcostal muscle)
3) ☐ axillary nerve
4) ☑ m. teres minor and m. infraspinatus
5) ☑ continuation of the suprascapular artery (from truncus thyrocervicalis)

58. The radial nerve channel (canalis humeromuscularis) is formed by:

1) ☐ the brachial muscle

2) ☐ of the deltoid tuberosity of the humerus

3) ☑ the triceps muscle of the shoulder

4) ☐ the interlobular sulcus

5) ☑ sulcus n. radialis of the humerus

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59. With a fracture of the humerus in the middle third, there is a risk of damage to the radial nerve. Why?

1) ☑ spirally bends around the humerus, located in the furrow of the same name directly on the bone

2) ☑ the displacement of the nerve is limited by its position in the shoulder-muscular canal

3) ☑ fixed to the humerus septum intermusculare brachii lateralis

4) ☐ in the shoulder-muscular canal from a. profunda brachii depart aa. nutriciae humeri

5) ☐ fixed to the humerus m. brachialis

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60. Motor and sensory disorders with a complete anatomical rupture of the N. radialis at the level of the middle and lower thirds of the shoulder consists in:

1) ☑ inability to straighten the hand ("hanging brush", "kiss brush")

2) ☑ loss of skin sensitivity of the posterior area of the shoulder and forearm

3) ☑ loss of skin sensitivity of the back of the hand and fingers (thumb, index and lateral half of the middle)

4) ☑ impossibility of supination of the forearm and hand

5) ☐ loss of thumb retraction

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61. The projection of the radial nerve in the posterior region of the shoulder corresponds to the line connecting the landmarks:

1) ☑ the middle of the posterior edge of the m. deltoideus

2) ☐ the interlobular sulcus of the humerus

3) ☐ the medial sulcus of the biceps muscle of the shoulder

4) ☐ the sulcus of the radial nerve of the humerus

5) ☑ the lower end of the sulcus bicipitalis lateralis

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62. Motor and sensory disorders with a complete anatomical rupture of N. axillaris consist in:

1) ☐ the inability to bend

2) ☐ the forearm shoulder in a pierced position

3) ☑ the inability to withdraw the arm up to 70

4) ☐ the inability to straighten the shoulder

5) ☑ loss of skin sensitivity in the deltoid region and the upper part of the posterolateral shoulder

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63. The projection line of the brachial artery corresponds to:

1) ☐ the humerus

2) ☑ to the medial edge of the m. biceps brachii

3) ☑ sulcus bicipitalis medialis

4) ☑ line connecting the apex of the axilla with the middle of the distance between the medial condyle of the humerus and the tendon of the biceps biceps muscle of the shoulder

5) ☐ sulcus bicipitalis lateralis

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64. With a complete anatomical rupture of the musculocutaneous nerve, the following disorders occur:

1) ☑ the forearm is bent in the elbow joint

2) ☑ there is no skin perception in the lateral part of the forearm (up to the elevation of the thumb)

3) ☑ atrophy of the cranio-humeral, humeral and biceps muscles of the shoulder

4) ☐ develops, the deltoid muscle is turned off from the function

5) ☐ the arm is in constant withdrawal

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65. The "arch" ("roof") of the shoulder joint is formed by:

1) ☐ conical ligament

2) ☑ lig. coracoacromiale

3) ☑ acromion

4) ☑ processus coracoideus

5) ☐ upper transverse ligament of the scapula

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66. Anatomical and functional features of the shoulder joint in a newborn:

1) ☑ the articular cavity of the scapula and the head of the humerus have a cartilaginous structure

2) ☑ the angle between the axes of the head and the body (diaphysis) is 170® (35® more than in an adult)

3) ☑ the upper, middle and lower glenohumeral ligaments are not developed

4) ☐ the cranio-brachial ligament is not developed

5) ☑ the volume of movements the joint is limited, especially the retraction, rotation and lifting of the limb above the horizontal level

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67. Cavitas glenoidalis scapulae of a newborn is characterized by the fact that it is:

1) ☐ deep

2) ☑ oval

3) ☑ flattened, shallow

4) ☑ labrum glenoidale low

5) ☐ discoid shape

68. Articular capsule articulatio humeri of a newborn:

1) ☑ fused with a short, sufficiently developed, cranio-brachial ligament
2) ☐ ligaments are not differentiated
3) ☑ stretched
4) ☐ the free
5) ☐ one has a loose structure

69. In 3-year-old children, with an increase in the range of motion, the capsule of the shoulder joint:

1) ☑ becomes more free
2) ☑ the coracohumerale ligament lengthens
3) ☑ and acquires a shape typical for an adult
4) ☐ there are no processes of collagenization of its fibrous membrane
5) ☐ there is no intercellular vagina

70. The synovial membrane of the shoulder joint forms depressions:

1) ☐ recessus sacciformis
2) ☑ intertubercular vagina
3) ☑ bursa subtendinea m. subscapularis
4) ☑ in the lower part (recessus axillaris - isolated from clinical positions)
5) ☐ depressions have no practical significance

71. Anatomical prerequisites for upward displacement of the clavicle in dislocations in the acromioclavicular joint are:

1)	☑	the obliquely cut articular surface of the clavicle rests on the articular surface of the acromion
2)	☐	traction of the muscle lifting the scapula
3)	☑	the presence of discus articularis (in 1/3 of cases)
4)	☐	traction of the trapezius muscle
5)	☑	in relation to the horizontal plane the joint cavity forms an obtuse angle, open upward and medially

72. The boundaries of the lower aperture of the axillary cavity correspond to:

1)	☐	the anatomical neck of the humerus
2)	☑	the lower edge of the pectoralis major muscle
3)	☑	the lower edge of M. latissimus dorsi et M. teres major
4)	☐	the spine of the shoulder blade
5)	☑	lines connecting the lower edge of the pectoralis major muscle and the latissimus dorsi muscle on the chest wall and shoulder

73. The upper aperture of the axillary cavity is limited by:

1)	☐	from behind - spina scapulae
2)	☑	from the front - clavicle
3)	☑	medially - I rib
4)	☐	from above - acromion
5)	☑	from behind - upper edge of the scapula

74. The exit (lower) opening of the radial nerve canal (between the middle and lower thirds of the humerus) is

limited by:

1)	☐	the lateral intermuscular fascial septum of the shoulder
2)	☑	the brachial muscle
3)	☑	the brachioradialis muscle
4)	☐	the lateral condyle of the humerus
5)	☐	the short head of the biceps muscle of the shoulder

75. Fascia axillaris has the following features:

1)	☑	more dense and durable along the edges of the axillary fossa
2)	☑	a significant part of the fiber of the axillary cavity is fused with it
3)	☐	forms a fascial sheath of the neurovascular bundle of the axillary region
4)	☑	in the center, thin (called the lattice axillary fascia; it is pierced by small veins, nerves, lymphatic vessels)
5)	☑	the plate of the clavicular-thoracic fascia is fused with it ("the supporting ligament of the armpit")

76. The external landmarks for determining the upper and lower boundaries of the regio cubiti are:

1)	☐	Olecranon
2)	☑	The medial epicondyle of humeri
3)	☐	The head of the radius
4)	☑	Epicondylus lateralis of the humerus
5)	☐	The coronal process of the ulna

77. Vertical lines drawn through the condyles of the humerus, the ulnar region is divided into:

1)	☑	Anterior elbow area

2) ☐ The ulnar fossa

3) ☑ Elbow joint

4) ☑ The posterior elbow area

5) ☐ Lateral ulnar sulcus

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78. The external landmarks of the fossa, where, with a slightly bent forearm, the head of the radius is probed, correspond to:

1) ☐ Epicondylus medialis of the humerus

2) ☑ Olecranon

3) ☑ The lateral epicondyle of the humerus

4) ☑ A fossa 1 cm downwards from epicondylus lateralis

5) ☐ The coronal process of the ulna

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79. The fissura of the elbow joint is projected onto:

1) ☐ Humerus Block

2) ☑ A line drawn 1 cm downwards from the lateral and 2 cm from the medial epicondyles of the humerus

3) ☐ The head of the condyle of the humerus

4) ☑ 1 cm down from the ulnar skin fold

5) ☐ The head of the radius

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80. In the posterior ulnar region, N.ulnaris is located in a furrow ("channel"), the walls of which are formed by:

1) ☐ A medial supracondyle ridge

2) ☑ The medial edge of the olecranon

3)	☐	The coronal process of the ulna
4)	☑	Sulcus nervi ulnaris of the medial epicondyle of the humerus
5)	☑	Its own fascia of the posterior ulnar region

81. Ulnar nerve "channel" syndrome is a complication:

1)	☑	Arthrosis of the elbow joint
2)	☑	Fracture of the medial condyle of the humerus
3)	☐	Applying a tourniquet in the upper third of the shoulder
4)	☑	Habits of putting your elbows on the table
5)	☑	Frequent flexion and extension of the forearm

82. The clinical manifestations of the ulnar nerve "channel" syndrome are:

1)	☑	Numbness of the little finger and medial side of the hand
2)	☐	Violation of supination and pronation of the forearm and hand
3)	☑	Weakness and atrophy of the muscles of the elevation of the little finger (short flexor, diverting and opposing little finger muscles), dorsal and palmar interosseous muscles, adductor muscle of the thumb, deep head of the short flexor of the thumb, 3rd and 4th wormlike muscles
4)	☐	Hanging brush
5)	☐	Atrophy of the deltoid muscle

83. With palpation and percussion in the projection of the "channel" of the ulnar nerve, the pain spreads to:

1)	☐	The lower third of the anterior area of the forearm
2)	☑	The medial half of the back of the hand
3)	☑	The back surfaces of the proximal phalanges of the IV,V and ulnar side of the III fingers

4) ☐ Elevation of the thumb

5) ☑ Palmar surfaces of the V and medial half of the IV finger

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84. The pulse on the brachial artery in the anterior ulnar region is determined by focusing on:

1) ☐ The head of the radius

2) ☑ Tendo of m. bicipitis brachii

3) ☐ The coronal fossa of the humerus

4) ☐ The middle of the line between the condyles of the humerus

5) ☑ Medial edge of biceps aponeurosis (lacertus fibrosus; fascia Pyrogovi)

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85. Subcutaneous veins of the anterior ulnar region, which are used for intravenous injections:

1) ☐ Medial subcutaneous vein of the forearm

2) ☑ Lateral subcutaneous vein of the arm

3) ☑ V. mediana cubiti

4) ☐ Median vein of the forearm

5) ☑ Medial saphenous vein of the arm

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86. V. basilica et v. cephalica in the anterior ulnar region form anastomoses which are indicated by letters:

1) ☐ «A»

2) ☑ «M»

3) ☐ «Y»

4) ☑ «И»

5) ☐ «Z»

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87. The neurovascular bundle of the ulnar fossa between the brachial (medially) and brachioradialis (laterally) muscles consists of:

1)	☐	n. ulnaris et a. collateralis ulnaris superior
2)	☐	Median nerve
3)	☑	Radial nerve
4)	☐	The lateral subcutaneous vein of the arm and the lateral cutaneous nerve of the forearm
5)	☑	Radial collateral artery

88. On the capsule of the elbow joint between the shoulder muscle and the m. supinator, the radial nerve gives off branches:

1)	☐	Posterior cutaneous nerve of the forearm
2)	☑	The superficial branch
3)	☐	Posterior ulnar nerve of the shoulder
4)	☑	n. interosseus posterior
5)	☑	r. profundus

89. The brachial artery in relation to the aponeurosis of the m. bicipitis brachii is located as follows:

1)	☐	Up
2)	☐	Medially
3)	☑	Laterally
4)	☑	Back up
5)	☐	To front

90. The lymph nodes of the anterior ulnar region - one of the sources of the development of superficial and deep

phlegmon - are located:

1)	☐	Along the course of the ulnar artery
2)	☑	2 cm up from the medial epicondyle of the humerus, along the course of v. basilica
3)	☐	They accompany the median vein of the forearm
4)	☑	2 cm downwards from the line connecting the epicondyles (at the a. brachialis bifurcation)
5)	☐	Accompanied by v. cephalica

91. Nerves are attached to the capsule of the elbow joint:

1)	☐	Medial cutaneous nerve of the forearm
2)	☑	Deep branch of the radial
3)	☐	The median
4)	☑	Ulnaris
5)	☐	The surface branch of the radial

92. The insufficient development of the fibrous membrane explains the localization of the "weak" places of the capsule of the elbow joint:

1)	☐	At the level of the radial incision of the ulna
2)	☑	In the posterior-upper part from the sides of olecranon et m. triceps brachii, where the joint is not covered by muscles
3)	☐	At the head of the condyle of the humerus
4)	☑	A sac-like depression (recessus sacciformis) medially from the neck of the radius, directed downward
5)	☐	In the anterior-upper section

93. The separation of the cavity of the elbow joint due to swelling of articular cartilage and synovial membrane

requires incisions for drainage:

1)	☐	A bag-like recess
2)	☑	Anterior joint
3)	☐	Bursa subcutanea olecrani
4)	☑	Posterior joint
5)	☐	Subcutaneous bursa of the triceps muscle of the shoulder

94. The ulna and radius, the proper fascia and the interosseous membrane of the forearm form:

1)	☑	The front bed of the forearm (for flexors and pronators)
2)	☐	The middle bed of the palm
3)	☑	Posterior bed of the forearm (for extensors and supinators)
4)	☐	The lateral bed of the palm
5)	☑	Lateral bed of the forearm (for the shoulder muscle, long and short extensors of the wrist)

95. The skin of the anterior region of the forearm can be used for plastic surgery on the face ("sharp" stem flap according to V.P. Filatov), because it:

1)	☑	Easily detaches from its own fascia
2)	☑	Thin
3)	☑	Mobile
4)	☑	Its properties are close to the skin of the face
5)	☐	Contains a large number of sebaceous glands

96. To determine the projection of the median nerve in the anterior region of the forearm, the following external landmarks are used:

1) ☑ The middle of the distance between the epicondyles of the humerus

2) ☐ Medial edge of the elbow flexor of the wrist

3) ☑ The proximal end of the thenar skin fold (when bringing the thumb)

4) ☑ The middle of the line between the styloid processes of the ulna and radius

5) ☐ Medial edge of the brachialis muscle

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97. The projection line of the ulnar neurovascular bundle corresponds to the following external landmarks:

1) ☐ The lateral edge of the circular pronator

2) ☑ Medial epicondyle of the humerus

3) ☐ The medial edge of the long flexor of the thumb

4) ☑ Pisiformis bone

5) ☐ Ulna

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98. External landmarks of the radial artery projection:

1) ☐ The radius

2) ☐ Medial edge of the brachialis muscle

3) ☑ The middle of the line between the epicondyles of the humerus

4) ☐ Medial edge of the circular pronator

5) ☑ The pulse point of the radial artery

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99. In the lower third of the forearm, the median nerve is not located in:

1) ☑ The sulcus of the interosseous membrane

2) ☑ Radial sulcus between the brachial muscle (laterally) and the radial flexor of the wrist (medially)

3)	☑	The ulnar sulcus between the superficial flexor of the fingers (laterally) and the ulnar flexor of the wrist (medially)
4)	☐	The median sulcus between the tendon of the long palmar muscle (medially) and the tendon of the radial flexor of the wrist (laterally)
5)	☑	The shoulder and elbow heads of the pronator teres

100. The front bed of the forearm is limited:

1)	☑	Fascia antebrachii (front)
2)	☑	By the anterior surfaces of the ulna, radius and interosseous membrane (back)
3)	☐	by the fascial case of the pronator teres (back)
4)	☑	by the fascia of the forearm (medially)
5)	☑	Anterior radial intermuscular septum

101. The deep cellular space of the anterior bed of the forearm is located between:

1)	☑	Membrana interossei anterbachii
2)	☑	M. flexor digitorum profundus
3)	☐	The surface flexor of the fingers
4)	☑	M. flexor pollicis longus
5)	☑	Fascia of the pronator quadratus

102. The lateral bed of the forearm is limited by:

1)	☑	Anterior radial intermuscular septum (medially)
2)	☐	Radius (laterally)
3)	☐	Ulna (medially)

4) ☑ Posterior radial intermuscular septum (posterior)

5) ☑ Fascia of the forearm (laterally)

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103. The posterior fascial bed of the forearm is located between:

1) ☑ The posterior radial intermuscular septum (laterally)

2) ☐ Ulna (posterior)

3) ☑ Fascia of the forearm, attached to the posterior edge of the ulnae (medially)

4) ☑ The posterior surface of the ulna, radius and interosseous membrane (front)

5) ☑ Fascia of the forearm (back)

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104. The walls of canalis supinatorius:

1) ☑ Anteromedial - neck of the radius (at the level of the entrance hole)

2) ☐ Medial - brachial muscle

3) ☐ Lateral - M. brachioradialis

4) ☐ Anterior - aponeurosis of the biceps muscle of the shoulder

5) ☑ Lateral - supinator

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105. Infringement (damage, or ingrowth into the callus) of the r. profundus of the radial nerve in collum radii fracture is due to the fact that it:

1) ☑ Bends around the neck of the radius

2) ☐ It passes in the radial furrow of the anterior region of the forearm

3) ☐ Penetrates the M. supinator

4) ☑ Fixed in canalis supinatorius (m. supinator - laterally, radius - medially)

5) ☑ It is directly adjacent to the neck of the radius

106. Phlegmon of the cellular space of N.I. Pirogov - Parona is, as a rule, a complication:

1) ☑ Tendobursitis of the radial sac (synovial vagina of the long flexor of the thumb)

2) ☐ Tendovaginitis of the middle finger

3) ☑ Tendobursitis of the ulnar sac (common synovial vagina of the flexors of the little finger and the proximal part of the synovial vaginas of the flexors of the index, middle and ring fingers of the hand)

4) ☐ Subcutaneous palmar surface panaritium

5) ☑ Phlegmons of the subaponeurotic space of the middle palm bed (via canalis carpi)

107. Ways of spreading purulent congestion from the cellular space of N.I. Pirogov - Parona:

1) ☐ Ascending (progressive phlegmon of the forearm - V.F. Voino-Yasenetsky) - along the anterior interosseous neurovascular bundle

2) ☐ Along the ulnar neurovascular bundle

3) ☑ When the synovial membrane melts into the distal radiocarpal joint, and then into the wrist joint

4) ☑ Into the deep cellular space of the posterior bed of the forearm-through holes in the membrana interossea

5) ☐ Into the intermuscular space of the anterior bed of the forearm (between the second and third layers of muscles)

108. The walls of the carpal canal are formed by:

1) ☑ pisiforme bone and os hamatum (medially)

2) ☐ Retinaculum musculorum extensorum (rear)

3) ☑ Navicular and trapezoid bone (laterally)

4) ☑ Retinaculum flexorum Flexor (front)

5) ☑ The bones of the wrist and the deep ligaments of the wrist

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109. Carpal tunnel syndrome (one of the most common types of tunnel syndrome is compression of N. medianus in canalis carpi) manifests itself:

1) ☐ Irradiation of pain in the tenar area and the lateral half of the hand

2) ☑ Numbness, paresthesia and pain in the I-VI fingers of the hand

3) ☑ Paresthesia occurs at night; decreases with shaking of the hand

4) ☑ Atrophy and weakness of the muscles of the hand, especially the elevation of the thumb

5) ☐ Atrophy of M. flexor digitorum superficialis

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110. Compression of N. medianus in canalis carpi is a consequence of:

1) ☑ Congenital narrowness of the canal

2) ☑ An increase in the volume of callus in fractures of the wrist bones

3) ☑ Constant overload of the hand (musicians, cutters, seamstresses, etc.)

4) ☐ Fracture of the III metacarpal bone

5) ☑ Tendoburcitis

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111. The canalis carpi radialis contains:

1) ☐ The radial artery with its accompanying veins

2) ☐ Superficial branches of the radial nerve

3) ☑ Vagina tendinis musculi flexoris carpi radialis

4) ☐ Radial nerve

5) ☑ The tendon of the radial flexor of the wrist

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112. The ulnar canal of the wrist contains:

1)	☐	The tendo m. flexor carpi ulnaris with its synovial vagina
2)	☑	Ulnar nerve
3)	☐	The deep branch of N. ulnaris
4)	☑	The ulnar artery with its accompanying veins
5)	☐	The superficial branch of the ulnar nerve

113. The wrist joint is formed by:

1)	☑	Carpal articular surface radius
2)	☐	The awl-shaped process of the ulna
3)	☑	Articular disc (triangular shape)
4)	☐	The pea-shaped bone
5)	☑	Proximal row of wrist bones (navicular, semilunar, triangular)

114. A gap in the articular disc informs (in 40%) joints:

1)	☐	Interstitial
2)	☑	The wrist
3)	☐	The joint of the pisiform bone
4)	☐	Medial metacarpal
5)	☑	Distal radioulnaris

115. The cavity of the wrist joint corresponds to:

1)	☐	The apex of the styloid process of the radius

2) ☑ Proximal arcuate skin fold of the wrist when extending the hand

3) ☐ The line connecting the bases of the awl-shaped processes of the radius and ulna

4) ☑ An arcuate line on the back of the wrist between the tips of the awl - shaped processes of the forearm bones with a bulge up to 1 cm upward in its middle

5) ☐ The forbidden area of the Canavel

---

116. Palmar aponeurosis is characterized by the fact that it is:

1) ☑ Triangular in shape with a base to the fingers of the hand

2) ☑ Durable, thick

3) ☐ Is an extension of the radial flexor tendon of the wrist

4) ☑ It is formed by longitudinal (superficial) fibers of the tendon of M. palmaris longus and transverse (deep) fibers of the fascia of the palm

5) ☑ In the distal part of the palm, the commissural openings are limited between the heads of the II-V metacarpal bones

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117. Through the commissural openings are communicated:

1) ☑ Subcutaneous tissue of the palmar surface of the proximal phalanges of the II-V fingers of the hand

2) ☑ Subaponeurotic cellular cleft of the middle fascial bed of the palm

3) ☐ The space of N.I. Pirogov - Parona

4) ☑ Subcutaneous tissue corresponding to the commissural openings ("palm pads")

5) ☑ Fiber along the course of its own palmar finger neurovascular bundles

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118. The medial fascial bed of the palm is limited:

1) ☐ I-th metacarpal bone (laterally)

2) ☑ Fascia (hypothenar) of the palm (front)

3) ☑ Deep fascia of the palm and V-th metacarpal bone (back)

4) ☑ Medial intermuscular septum (laterally)

5) ☐ Palmar aponeurosis (front)

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119. The walls of the lateral fascial bed of the palm are:

1) ☑ Fascia (thenar) of the palm (front)

2) ☑ Lateral intermuscular septum (laterally)

3) ☑ Deep plate of the fascia of the palm and the I-th metacarpal bone (back)

4) ☐ Palmar aponeurosis (front)

5) ☑ The connection of the fascia of the palm with the I-th metacarpal bone (laterally)

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120. The middle fascial bed of the palm is limited by:

1) ☑ Palmar aponeurosis (anterior)

2) ☑ Medial intermuscular septum (medial)

3) ☐ The V-th metacarpal bone (medially)

4) ☑ Lateral intermuscular septum (laterally)

5) ☑ Deep plate of the fascia of the palm (back)

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121. In the subaponeurotic (superficial) slit of the middle fascial bed, the palms are arranged in layers:

1) ☑ Arcus palmaris superficialis with common palmar finger arteries

2) ☑ Median nerve with common palmar finger nerves I,II,III,IV (lateral side) and ulnar nerve with common palmar finger nerves IV (medial side), V

3)	☐	Palmar aponeurosis
4)	☑	Tendons of the superficial and deep flexors of the fingers with a common synovial vagina
5)	☐	Lateral intermuscular septum

122. The superficial palmar arch, crossing the tendons of the flexors of the fingers, is located at the level of:

1)	☑	The middle third of the length of the metacarpal bones
2)	☐	The proximal transverse skin fold of the palm
3)	☐	Distal transverse skin fold of the palm
4)	☑	2 cm downwards from the lower edge of the retinaculum flexorum
5)	☐	The heads of the metacarpal bones

123. The projection of the r.r. musculares of the median nerve (the "forbidden zone" of the Canavel) is located:

1)	☑	3-4 cm down from the distal skin fold of the wrist (according to A.A. Travin)
2)	☐	At the level of the metacarpal heads (II,III)
3)	☑	Accordingly, the proximal third of the skin fold is thenar
4)	☑	In the area between the thenar fold (bottom) and the lines from the trapezoid bone to the medial edge of the palmar-palmar fold of the V finger (top) and the lateral edge of the palmar-palmar fold of the III finger (bottom) (according to A.S. Naryadchikova)
5)	☐	At the level of the carpocarpal joint

124. The lateral fascial bed of the palm (thenar bed) contains:

1)	☑	m. abductor pollicis brevis and branches of r. profundus n. ulnaris
2)	☑	The superficial and deep heads of the short flexor of the thumb and 2/3 of the arcus palmaris profundus
3)	☐	m. supinator

4) ☑ Oblique and transverse glans of the m. adductor pollicis and branches of the median nerve

5) ☑ The tendon m. flexor pollicis longus with its synovial vagina

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125. The deep cellular gap of the thenar bed is located between:

1) ☐ The tendon of the long flexor of the thumb

2) ☑ The transverse head of the m. adductor pollicis

3) ☑ The lateral part of the deep (interosseous) fascia thenar

4) ☐ Tendon of M. palmaris longus

5) ☐ Ulnar synovial sac

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126. The lateral cellular space communicates with:

1) ☐ The space of N.I. Pirogov-Parona

2) ☑ Deep cellular cleft thenar at the lateral edge of the transverse head of the m. adductor polilcis

3) ☑ Along the radial artery it passes to the rear of the I-th carpocarpal space

4) ☐ The hypothenar bed

5) ☑ The back of the hand between the heads of m. abductor pollicis under m. interosseus posterior primus

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127. The subcutaneous tissue of the palm surface of the finger is characterized by the following features:

1) ☑ Contains a large amount of adipose tissue

2) ☑ It has the form of spherical clusters

3) ☑ Located between connective tissue (fibrous) bridges from the papillary layer of the skin to the periosteum (distal phalanx) and fibrous sheaths of flexor tendons (middle and proximal phalanges)

4) ☐ It has a layered structure

5) ☐ The structure of the subcutaneous tissue of the palm surface of the finger does not matter in the clinical manifestations of inflammation

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128. The borders of the gluteal region correspond to:

1) ☑ the iliac crest (upper)

2) ☐ of the large sciatic notch (lateral)

3) ☑ of the gluteal fold (lower)

4) ☑ of the posterior median line in the depth of the interagodial fold (medial)

5) ☑ of the vertical line drawn through the spina iliaca anterior superior et trochanter major (lateral)

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129. The exit point of a.glutea superior into the gluteal region is located on the border of the upper and middle third line between:

1) ☐ tuber ischiadicum

2) ☐ upper posterior iliac spine

3) ☑ upper posterior iliac spine

4) ☑ apex of the large trochanter

5) ☐ on the Roser-Nelaton line

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130. Landmarks of the projection of the exit of the inferior gluteal artery into the gluteal region:

1) ☐ pubic tubercle

2) ☑ spina ileaca posterior superior

3) ☐ spine iliac wing

4) ☑ medial edge tuber ischiadicum

5) ☐ apex of the coccyx

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131. The sciatic nerve is projected at a point in the middle of the distance between (the point of nerve blockage):

1)	☐	promontorium
2)	☐	sciatic spine
3)	☑	apex of the great trochanter
4)	☐	superior anterior iliac spine
5)	☑	medial edge of the tuber ischiadicum

132. The skin of the gluteal region (closer to the interdigital fold) is characterized by the presence of:

1)	☑	hair
2)	☑	of the sebaceous glands
3)	☑	of connective tissue partitions, fixing it to its own fascia
4)	☐	of significant
5)	☑	displacement of sweat glands

133. Structural features of the subcutaneous base of the upper lateral gluteal region:

1)	☑	divided into superficial and deep layers by the plate of the superficial fascia
2)	☑	the deep layer of the subcutaneous base upwards from crista iliaca passes into massa adiposa lumboglutealis there
3)	☑	are branches of the upper gluteal neurovascular bundle
4)	☑	pass the upper, middle and lower nerves of the buttocks
5)	☐	has a loose structure

134. The gluteal fascia has a close anatomical relationship with the muscles:

1)	☐	m. erector spine
2)	☐	m. obturatorius interna
3)	☑	gluteus maximus
4)	☑	gluteus medius
5)	☐	biceps femoris muscle

135. The clinical significance of the anatomical relationship of the gluteal fascia with M. gluteus maximus:

1)	☐	passes into the lumbar-thoracic fascia (fascia thoracolumbalis)
2)	☑	fascia from the muscle can only be separated by acute
3)	☑	suppuration in the thickness of the gluteus maximus muscle (complication of intramuscular injection) is limited in nature
4)	☐	gluteal fascia passes into fascia lata
5)	☑	inflammatory infiltrates are accompanied by a sharp increase in pressure with the development of pronounced pain the syndrome

136. The cellular space of the gluteal region is located under:

1)	☐	the middle gluteus
2)	☐	m. quadratus femoris
3)	☐	piriformis muscle
4)	☑	the gluteus maximus muscle
5)	☑	the deep plate of the gluteal fascia

137. The large sciatic opening is limited by:

1)	☐	the upper aperture of the pelvis

2) ☐ linea terminalis

3) ☑ large sciatic notch

4) ☐ sciatic tubercle

5) ☑ sacro-spinous ligament

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138. Purulent exudate from under the gluteus maximus (subclavian space) cannot spread into the lateral space of the abdominal cavity of the pelvis through the holes:

1) ☑ obturatorium

2) ☑ suprapiriforme

3) ☑ small sciatic

4) ☐ infrapiriforme

5) ☑ hiatus saphenus

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139. In the foramen suprapiriforme, the trunk of the superior gluteal artery is fixed to:

1) ☐ fascia of the internal locking muscle

2) ☑ periosteum of the large sciatic notch

3) ☐ fascia of the piriformis muscle

4) ☑ fascia of the middle gluteal muscle

5) ☐ fascia of the squared thigh muscle

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140. It exits into the gluteal region through the foramen suprapiriforme:

1) ☐ nn. clunium superiores

2) ☐ lumbosacral trunk

3) ☑ superior gluteal nerve

4) ☑ superior gluteal artery

5) ☑ superior gluteal veins

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141. Nerves exit through the foramen infrapiriforme into the gluteal region:

1) ☐ the upper gluteal

2) ☑ genital

3) ☑ gluteal inferior

4) ☑ sciatic

5) ☑ n. cutaneus femoris posterior

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142. The arteries enter the gluteal region through the foramen infrapiriforme:

1) ☐ a. rectalis inferior

2) ☑ inferior gluteal

3) ☑ a. pudenda interna

4) ☑ artery accompanying the sciatic nerve

5) ☐ internal iliac artery

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143. The small sciatic foramen is limited by:

1) ☐ a branch of the ischia bone

2) ☑ the sacro-tubercular ligament

3) ☐ and the iliac crest

4) ☑ sacro-spinous ligament

5) ☑ of the small sciatic incisura

144. In fossa ischiorectalis, the following pass through the small sciatic opening from the gluteal region:

1) ☑ internal pudendal artery

2) ☑ internal pudendal nerve

3) ☐ perineal nerves

4) ☐ femoral nerve

5) ☑ internal pudendal vein

145. For intramuscular injections of drugs, the upper lateral quadrant of the gluteal region is used because:

1) ☑ there are no large neurovascular bundles

2) ☑ a pronounced muscular array

3) ☐ there located n. ischiadicus

4) ☑ when sitting, soft tissues are subjected to a lesser degree of compression

5) ☐ the subcutaneous base has a cellular structure

146. The difficulties of stopping bleeding in wounds of the gluteal region are due to:

1) ☑ the deep position of the source of bleeding in the musculocellular array

2) ☑ short out-of-phase sections of the upper and lower gluteal arteries

3) ☑ the proximal ends of the arteries contract into the supra- and subarachnoid openings, distal - into the depth of the musculocellular array

4) ☑ the gluteal arteries have a large number of anastomoses

5) ☐ blood outflow occurs into the internal iliac vein

147. Possible ways of spreading purulent congestion from the gluteal region along the course of the neurovascular bundles:

1)	☑	to the posterior region of the thigh (according to N.ischiadicus)
2)	☑	through the small sciatic foramen into the ischiorectal fossa (along the int. pudendal bundle)
3)	☑	through the infrapiriforme foramen into the lateral cellular space of the pelvis (along the lower gluteal and genital bundles)
4)	☐	through the suprapiriforme foramen into the lateral the cellular space of the pelvis (along the upper gluteal bundle)
5)	☐	into the medial musculofascial bed of the thigh (along the obturator bundle)

148. To build the Roser-Nelaton line, landmarks are used:

1)	☐	iliac crest
2)	☐	pubic tubercle
3)	☑	spina ileaca anterior superior
4)	☐	trochanter minor
5)	☑	trochanter major

149. The Roser-Nelaton line is used in the diagnosis of:

1)	☐	phlegmons of the gluteal region
2)	☑	of congenital hip dislocation
3)	☐	coxarthrosis of the hip joint
4)	☑	fracture of the femoral neck
5)	☑	coxa vara

150. The ligament of the femoral head contains:

1)	☐	the occlusal nerve
2)	☑	the trochanteric branch (from R. posterior a. obturatoria)
3)	☐	the femoral-genital nerve
4)	☑	v.v. acetabularis (tributaries of the obturator vein)
5)	☐	v.v. gluteae inferiores

151. The hip joint is strengthened by ligaments:

1)	☐	sacro-tubercular
2)	☑	iliofemorale (transverse and descending parts)
3)	☑	lig. ischiofemorale
4)	☑	zona orbicularis
5)	☑	pubofemorale

152. The lacuna vasorum is limited by:

1)	☑	inguinal ligament
2)	☐	m. pectineus
3)	☑	lacunar ligament
4)	☑	pectineal ligament with the upper branch of the pubic bone
5)	☑	arcus ileopectineus

153. Lacuna vasorum contains:

1)	☐	external iliac artery

2) ☑ loose fibrous connective tissue

3) ☑ femoral branch of the n. genitofemoralis

4) ☑ femoral vein

5) ☑ femoral artery

154. The walls of the anulus femoralis (inner opening of the femoral canal) form:

1) ☑ inguinal ligament

2) ☑ pectineal ligament

3) ☐ ilio-pubic elevation

4) ☑ lacunar ligament

5) ☑ fascial sheath of the femoral vein

155. Specify the intermuscular fascial septa of the thigh area and their characteristics:

1) ☑ lateral (in the form of aponeurosis; between the anterior and posterior muscular-fascial beds)

2) ☑ posterior (loose; between the posterior medial beds)

3) ☐ iliac-pectineal arch (between the inguinal ligament and the crest of the pubic bone)

4) ☑ medial (strong; between the medial and anterior muscular-fascial beds)

5) ☐ tractus iliotibialis (durable, has an aponeurotic structure)

156. With a pinched femoral hernia, they do not dissect:

1) ☐ lacunar ligament

2) ☑ inguinal ligament

3) ☑ pectineal ligament

4) ☑ arcus ileopectineus

5) ☑ sacro-spinous ligament

---

157. In case of a pinched femoral hernia, the lacunar ligament is dissected between the Kocher hemostatic clamps applied to it in order to avoid bleeding due to damage to:

1) ☐ the femoral vein

2) ☐ of the femoral artery

3) ☑ of the obturator artery - branches a.epigastrica inferior (corona mortis-27.6% according to V.V.Kovanov and T.A.Anikina)

4) ☐ of the umbilical artery

5) ☑ of anastomosis between the pubic branch a.obturatoria and the occlusal branch of the inferior epigastric artery (corona mortis - 30%)

---

158. The projection line of the femoral artery (Ken's line) corresponds to the landmarks:

1) ☑ the point in the middle of the distance between the anterior superior iliac spine and the pubic symphysis

2) ☑ in the middle of the inguinal ligament

3) ☐ to the pubic tubercle

4) ☑ tuberculum adductorium of the medial epicondyle of the femur

5) ☐ of the tibial tuberosity

---

159. What position is given to the lower limb when determining the projection line a.femoralis?

1) ☐ the limb is straightened

2) ☑ slightly bent at the hip joint

3) ☐ as far as possible

4) ☑ slightly bent at the knee joint

5) ☑ turned along the axis (rotated) to the lateral side

---

160. In the upper medial part of the anterior femoral region, the surface plate of the broad fascia is characterized by heterogeneity of structure:

1) ☑ in the lateral part covering a.femoralis, dense, forms a crescent-shaped edge

2) ☐ throughout the department of the same thickness and density

3) ☑ in the medial part, anteriorly from v.femoralis, loosened (latticed fascia)

4) ☐ has an aponeurotic structure

5) ☑ in the medial part forms hiatus saphenus for the large saphenous vein of the leg

---

161. The medial bed of the thigh contains:

1) ☑ an obturator neurovascular bundle

2) ☑ m. gracilis

3) ☐ m. iliopsoas

4) ☑ m. pectineus

5) ☑ adductor muscles (long, short, large)

---

162. In the posterior bed of the thigh are located:

1) ☑ sciatic nerve

2) ☑ biceps femoral muscle

3) ☐ medial broad femoral muscle

4) ☑ m. semitendinosus

5) ☑ semimembranosus muscle

163. The anterior thigh bed contains:

1) ☑ m. sartorius
2) ☑ quadriceps muscle (rectus muscle, lateral, medial and intermediate broad thigh muscles)
3) ☑ femoral neurovascular bundle
4) ☐ comb muscle
5) ☐ obturator neurovascular bundle

164. The walls of canalis femoralis (formed with a femoral hernia) are represented by:

1) ☑ anterior- inguinal ligament with the upper horn of margo falciformis fused to it of the wide fascia of the thigh
2) ☑ posterior- deep plate of the fascia lata covering the m. pectineus
3) ☑ lateral- fascial sheath v. femoralis
4) ☐ anterior- fascial sheath of the ilio-lumbar muscle
5) ☐ medial- comb ligament

165. Canalis adductorius (s.canalis femoropopliteus) is formed by:

1) ☑ m. adductor magnus (medially)
2) ☑ m. vastus medialis (laterally)
3) ☑ lamina vastoadductoria (front)
4) ☐ m.sartorius (laterally)
5) ☐ m.pectineus (medially)

166. Through the upper opening, the adductor canal is entered by:

1) ☐ the obturator nerve
2) ☑ femoral artery
3) ☐ deep femoral artery
4) ☑ femoral vein
5) ☑ n. saphenous (branch N. femoralis)

---

167. Through the anterior opening of the adductor canal exit:

1) ☐ femoral nerve
2) ☑ n. saphenous
3) ☐ large subcutaneous vein of the leg
4) ☑ descending artery of the knee
5) ☐ deep vein of the thigh

---

168. Through the lower opening of the canalis adductorius, bounded by the tendon of the great adductor muscle and the femur, the following enter the fossa poplitea:

1) ☐ the third perforating artery
2) ☐ n. saphenous
3) ☑ femoral artery
4) ☐ medial artery encircling the femur
5) ☑ femoral vein

---

169. Into the medial bed of the thigh through the occlusal canal enter:

1) ☐ n.genitofemoralis

2) ☐ inferior epigastric artery

3) ☑ obturator artery

4) ☑ obturator nerve

5) ☑ obturator vein

---

170. The superficial and deep inguinal lymph nodes receive lymph from:

1) ☑ the perineum

2) ☑ area of the anterior abdominal wall (down from the navel)

3) ☑ of the lumbar and gluteal regions

4) ☑ of the lower extremity

5) ☐ of the colon

---

171. Damage to aa. perforantes when accessing the femur is complicated by significant bleeding, since:

1) ☑ the walls of the arteries are fixed in the openings of the tendons m.adductor brevis et m.adductor magnus

2) ☑ the lumen of the artery gapes

3) ☑ the arteries have multiple anastomoses

4) ☑ the search for the source of bleeding in the muscle mass is difficult

5) ☐ aa.perforantes - arteries from the pool a. profunda femoris

---

172. Purulent congestion with phlegmon of the posterior thigh area spreads to:

1) ☑ popliteal fossa

2) ☐ lumbar region

3) ☑ gluteal region

4) ☐ sciatic-anal fossa

5) ☐ inguinal region

---

173. In children under 3 years of age, the projection line of the femoral artery as the femur lengthens:

1) ☑ shifts to the medial side

2) ☐ corresponds to the Ken line

3) ☑ the artery approaches the medial edge femur

4) ☐ corresponds to the Roser-Nelaton line

5) ☐ occupies a stable position despite the increase in bone length

---

174. Features of acetabulum in newborns:

1) ☑ oval-shaped

2) ☑ shallow (most of the femur head is located outside the acetabulum)

3) ☐ acetabulum is the same as in adults

4) ☑ the acetabulum deepens with the development and modulation of the femur head

5) ☑ cartilaginous lip is low

---

175. In infants, the acetabulum on the side of congenital hip dislocation is characterized by the fact that it is:

1) ☑ not deep due to the underdevelopment of all components of the joint, especially its upper edge

2) ☐ the structure of the acetabulum does not change with hip dislocation

3) ☑ flat

4) ☑ triangular shape

5) ☑ the arch is not expressed

176. With congenital hip dislocation, pathological changes in the hip joint develop with age:

1) ☑ at the position of the femur head on the ilium, a "new acetabulum"

2) ☑ is formed by a sliding furrow, a "new depression" connects to the true

3) ☑ acetabulum the sliding furrow is covered with cartilage

4) ☐ the femur head does not undergo changes

5) ☑ the femur head is underdeveloped, with uneven contours, ovoid, cone-shaped, later mushroom-shaped

177. Femur neck with congenital hip dislocation undergoes pathological changes:

1) ☑ shortens

2) ☐ does not undergo changes

3) ☑ bends

4) ☑ turns anteriorly, or

5) ☐ thickens posteriorly

178. The boundaries of the anterior knee area correspond to:

1) ☐ vertical lines running along the epicondyle of the femur (lateral)

2) ☑ horizontal line drawn 5-6 cm upward from the base patellae (upper)

3) ☑ horizontal line at the level of the tibial tuberosity

4) ☑ vertical lines passing through the posterior edges of the medial and lateral condyles of the femur (lateral)

5) ☐ to the level of the base of the patella (upper)

179. The skin of the anterior knee area is characterized by:

1) ☑ density
2) ☑ slight displacement along
3) ☑ the periphery of the patella contains hair
4) ☐ the skin is firmly fixed to the patella
5) ☐ between the plates of the superficial fascia and contains subcutaneous pre- and subcutaneous synovial bags

180. The proper fascia of the regio genus anterior is not a continuation:

1) ☑ fascia glutea
2) ☑ tractus iliotibialis
3) ☐ fascia lata
4) ☑ arcus ileopectineus
5) ☐ of the lateral intermuscular fascial septum of the thigh

181. Synovial bursas that do not communicate with the cavity of the knee joint include:

1) ☐ bursa suprapatellaris
2) ☑ bursa prepatellaris subcutanea
3) ☑ bursa subcutanea tuberositas tibiae
4) ☑ bursa prepatellaris subfascialis
5) ☑ bursa prepatellaris subtendinea

182. The walls of the suprapatellar synovial bursa are formed by:

1) ☑ the posterior surface of the quadriceps tendon (anterior)

2) ☐ patella (anterior)

3) ☐ patellar ligament (anterior)

4) ☑ the anterior surface of the femur, separated from the synovial membrane by a layer of loose connective tissue (posterior)

5) ☐ fascia lata

183. Fascial septa of the proper fascia of the posterior knee region (fascia poplitea) are attached to:

1) ☐ tibial tuberosity

2) ☑ medial labrum linea aspera

3) ☐ epicondylus lateralis

4) ☑ lateral labrum rough line

5) ☐ epicondylus medialis

184. The fascia propria of the regio genus posterior and its septa form vaginas:

1) ☑ tendons m.biceps femoris

2) ☑ of the neurovascular bundle of the popliteal fossa (n.tibialis, a. et v. poplitea)

3) ☐ tendons of the m.rectus femoris

4) ☑ tendons of the semi-tendon muscle (m.semitendinosus)

5) ☑ in the lower half of the region - v.saphena parva canal (N.I.Pirogov canal)

185. The walls of fossa poplitea are:

1) ☑ upper medial- tendons of the semi-membranous and semi-tendon muscles

2) ☑ of the upper lateral- tendon m.biceps femoris

3)	☑	inferior medial- medial head of the calf muscle
4)	☐	of the inferior medial- M.soleus
5)	☑	inferior lateral- lateral head of M.gastrocnemius

186. The bottom of fossa poplitea is made up of:

1)	☐	tuberositas glutea femur
2)	☑	facies poplitea femur
3)	☑	posterior part of the capsule of the knee joint, strengthened by oblique and arched popliteal ligaments
4)	☑	popliteal muscle
5)	☐	flounder muscle

187. The upper medial part of the popliteal fossa (Joubert's fossa) is limited by:

1)	☑	the tendon of the large adductor muscle (in front)
2)	☐	the tendon of the long adductor muscle (in front)
3)	☑	the tendons of the semi-tendon, semi-membranous and thin muscles (behind)
4)	☑	the edge of the tailor's muscle (above)
5)	☑	the medial head of the calf muscle and the medial condyle of the femur (below)

188. A hematoma from the popliteal fossa along the course of the neurovascular bundles can spread to:

1)	☐	into the canal of N.I. Pirogov (according to v.saphena parva)
2)	☑	the posterior region of the thigh (according to n.ischiadicus) the
3)	☑	posterior region of the shin (in canalis cruropopliteus according to N.tibialis and A. et v.poplitea)
4)	☑	into the anterior region of the thigh (according to A. et v.femoralis)

5) ☐ into the cavity of the knee joint (along the medial inferior knee artery)

189. The blood vessels and nerves of the popliteal fossa are located as follows (when the patient is on his stomach):

1) ☑ n.tibialis - superficially, along the middle vertical line fossa poplitea

2) ☑ v.poplitea- medially and deeper n.tibialis

3) ☑ a.poplitea- medially and deeper than the vein

4) ☐ of the same name, the cutaneous nerve of the calf at the level of the beginning of the lower tendon of the calf muscle penetrates its own the fascia of the tibia

5) ☑ is the common fibular nerve – along the medial surface of the tendon m.biceps femoris

190. After entering the canalis cruropopliteus at the level of the lower edge of the popliteal muscle, the arteries depart from a.poplitea:

1) ☐ lateral upper knee

2) ☑ anterior tibial

3) ☐ medial upper knee

4) ☐ middle knee

5) ☑ posterior tibial

191. The lymph nodes of the popliteal fossa, as the cause of adenophlegmon, are located as follows:

1) ☑ superficial- under the popliteal fascia along v.saphena parva

2) ☑ medium- accompany the popliteal artery and vein

3) ☐ superficial- accompany v.saphena parva et n.cutaneus surae medialis in the N.I. Pirogov canal

4) ☑ deep- located on the capsule of the knee joint

5) ☐ medium- they are located along the course of N.peroneus communis

192. Articular cavity articulatio genus corresponds to:

1) ☑ transverse grooves on the sides of the patellar ligament (with a bent shin)

2) ☑ to the upper edges of the tibial condyles

3) ☐ of a horizontal line drawn through the femur

4) ☑ epicondyles to the gap between the epicondyles of the femur and tibia

5) ☑ of the transverse skin fold of the posterior knee area (with a bent shin)

193. The articulatio genus intraarticular ligaments include:

1) ☑ anterior cruciate

2) ☐ tibial collateral

3) ☑ transverse ligament of the knee

4) ☐ lateral supporting ligament of the patella

5) ☑ posterior cruciate

194. In the anterior part, the knee joint is strengthened by the following extra-articular ligaments:

1) ☑ patellar ligament

2) ☑ medial supporting ligament patellar

3) ☐ arched popliteal

4) ☑ lateral supporting ligament patellar

5) ☐ oblique popliteal

195. The extra-articular ligaments of the posterior knee joint include:

1)	☐	posterior cruciate
2)	☑	oblique popliteal
3)	☐	fibular collateral
4)	☑	arcuate
5)	☐	tibial collateral

196. The medial and lateral menisci are attached to:

1)	☑	the intercondylar elevation of the tibia
2)	☑	transverse ligament of the knee
3)	☐	ligament of the patella
4)	☐	patella
5)	☐	anterior intercondylar field

197. With purulent gonitis, the cavity of the knee joint is divided into sections: the

1)	☐	upper
2)	☑	anterior
3)	☐	lower
4)	☑	posterior
5)	☐	cavity of the joint does not separate

198. The symptom of a “drawer” – displacement of the shin anteriorly when trying to sit down indicates:

1)	☑	fracture of the medial condyle of the tibia

2) ☐ rupture of the posterior cruciate ligament

3) ☐ hemarthrosis

4) ☑ rupture of the ligamentum cruciatum anterius

5) ☐ valgus deformity in the knee joint

---

199. Periarticular phlegmons, as a complication of the accumulation of pus in the posterior recesses (inversions) of the articulatio genus cavity, develop as a result of their communication with:

1) ☑ bursa m.poplitei

2) ☑ bursa m.semimembranosi

3) ☑ bursa capitis medialis m.gastrocnemii

4) ☐ bursa suprapatellaris

5) ☐ deep pre-knee bursa

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200. The anterior fascial bed of the tibia contains:

1) ☑ m.tibialis anterior(medially)

2) ☑ m.extensor hallucis longus (from the level of the middle third of the fibula)

3) ☑ long extensor II-V toes

4) ☐ a.fibularis [s.peronea] with two veins of the same

5) ☑ name anterior tibial artery with two veins of the same name and n.fibularis profundus

---

201. The reference points of the projection of the anterior tibial artery are the middle of the distance between:

1) ☑ tuberositas tibiae

2) ☐ margo anterior tibiae

3) ☑ fibular head

4) ☑ medial ankle

5) ☑ lateral ankle

202. A complete anatomical rupture of the deep fibular nerve is accompanied by motor disorders in the form of a "horse" foot:

1) ☑ violation of foot supination

2) ☐ violation of shin flexion in the knee joint

3) ☑ inability to unbend the foot in the ankle joint

4) ☑ inability to unbend the thumb of the foot

5) ☑ inability to unbend the II-V fingers in the metatarsophalangeal joints

203. The posterior wall of canalis cruropopliteus is not formed by muscles:

1) ☑ gastrocnemius

2) ☐ soleus

3) ☑ m. tibialis posterior

4) ☑ m. flexor hallucis longus

5) ☑ m. fibularis longus

204. The muscles that make up the walls of the canalis cruropopliteus:

1) ☐ the heads of the calf muscle

2) ☑ posterior tibial (anterior)

3) ☑ m. flexor hallucis longus (lateral)

4) ☑ m. flexor digitorum longus (medial)

5) ☑ m. soleus (posterior)

---

205. The vagina of the neurovascular bundle of the posterior region of the lower leg is formed by:

1) ☑ the plate of the deep leaf of the fascia of the lower leg, covering the anterior surface of the m.soleus

2) ☐ interosseous membrane

3) ☐ posterior intermuscular fascial septum

4) ☐ anterior intermuscular fascial septum

5) ☑ plate of the deep leaf of the fascia of the lower leg, covering the posterior surface of the deep flexors

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206. Articulatio talocruralis form: the

1) ☑ lower articular surface of tibiae

2) ☑ the articular surface of the medial ankle

3) ☐ the articular surfaces of the lower

4) ☑ tibial joint, the articular surface of the lateral ankle

5) ☑ the block and the ankle surfaces of the talus

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207. Ligamentum mediale (s.deltoideum) of the ankle joint consists of ligaments:

1) ☑ tibial-navicular

2) ☑ tibial-calcaneal

3) ☐ calcaneal-fibular

4) ☑ anterior tibial-talus

5) ☑ posterior tibial-talus

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208. The landmarks for the construction of the pulse point a.tibialis posterior are:

1) ☐ lateral ankle

2) ☑ calcaneal (Achilles) tendon

3) ☐ navicular bone

4) ☐ calcaneal tubercle

5) ☑ medial ankle

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209. The main anatomical components of the musculoskeletal “pump” of the lower limb are:

1) ☑ muscles and their fascial cases

2) ☑ fascial cases of neurovascular bundles

3) ☐ joint capsules

4) ☑ valvular vein apparatus

5) ☑ numerous anastomoses of superficial and deep veins through perforating veins

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210. The pulse point a.dorsalis pedis is determined above the navicular bone in the middle of the distance between:

1) ☐ calcaneus

2) ☑ lateral ankle

3) ☐ medial sphenoid bone

4) ☐ middle II metatarsal

5) ☑ medial ankle

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211. The canalis calcaneus is a slit-like gap between:

1) ☐ the muscle that drives the thumb of the foot

2) ☐ the square muscle of the sole

3) ☑ the calcaneus

4) ☐ the worm-like muscles

5) ☑ m. abducens hallucis

212. The plantar canal passes into the deep part of the middle fascial bed between:

1) ☐ the square muscle of the sole

2) ☑ the tendons of the long flexor of the toes

3) ☐ the muscle withdrawing the thumb of the foot

4) ☑ the m. adductor hallucis

5) ☐ with the short flexor of the thumb

213. In children, from the moment of transition to an upright position and walking, the following processes occur in the joints of the foot:

1) ☑ ossification develops

2) ☑ articular surfaces are finally formed

3) ☐ the line of the transverse joint of the tarsus remains almost straight

4) ☑ ligaments and joint capsules

5) ☑ develop, arches of the foot are formed

214. The parts of the lig.bifurcatum – the “key” of the transverse joint of the tarsus (Chopar), the dissection of which provides dismemberment, are ligaments:

1) ☐ calcaneal-fibular

2) ☑ calcaneal-navicular

3) ☐ talus-navicular

4) ☑ calcaneal-cuboid

5) ☐ posterior talus-fibular

---

215. The permanent points of support of the foot include:

1) ☑ the head of the I metatarsal

2) ☐ the block of the talus

3) ☐ the tuberosity of the cuboid bone

4) ☑ of the head of the V metatarsal

5) ☑ the tuber calcaneus

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216. Percutaneous puncture and catheterization of arteries and veins are used for the purpose of:

1) ☑ angio- and phlebography

2) ☑ of intensive infusion (catheter) therapy

3) ☑ for endovascular

4) ☐ ligation of the main artery during

5) ☐ the removal of a part of the blood vessel for bypass surgery

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217. Selective angiography is the introduction of a radiopaque substance into a specific artery by:

1) ☐ venesection (v. saphena magna)

2) ☑ puncture and catheterization a.femoralis according to Seldinger

3) ☐ operative access to an artery, the basin of which is subject to examination

4) ☑ by puncture and catheterization of an accessible artery with a catheter at the mouth of the artery, blood supply to the organ (or part thereof)

5) ☐ venipuncture (v.intermedia cubiti)

218. Types of selective angiography:

1) ☑ coronary angiography

2) ☐ translumbal aortography

3) ☑ carotid angiography

4) ☑ mesentericography

5) ☑ renography

219. Puncture and catheterization of a.femoralis according to the Seldinger method is performed after determining the pulse at the point, with the following landmarks:

1) ☐ the middle of the Ken line

2) ☑ 1 cm medially from the middle of the linea spinosymphisialis (inguinal ligament)

3) ☐ 2 cm down from the tuberculum pubicum

4) ☐ 3 cm down from spina iliaca anterior superior

5) ☑ 1 cm down from the middle of the line between the upper anterior iliac spine and the pubic symphysis

220. Restoration of the physiological conditions of hemodynamics in the main artery is achieved by the use of:

1) ☐ embolization

2) ☐ perforation of the artery wall

3) ☑ embolectomy

4) ☑ bypass

5) ☑ stenting

221. For open surgical interventions on the arteries, surgical approaches are used:

1) ☐ transmuscular
2) ☑ direct, projection (along the projection line)
3) ☐ intermuscular
4) ☑ indirect, non-projection (1-2 cm medially or laterally from the projection line)
5) ☑ endosurgical (when taking the radial artery for coronary artery bypass grafting)

222. By projection operative access, the arteries are exposed:

1) ☐ a. brachialis
2) ☑ radial
3) ☐ femoral (in the femoral triangle)
4) ☑ ulnar
5) ☑ anterior tibial

223. Out-of-projection access is used in operations on the arteries:

1) ☑ axillary
2) ☑ a. femoralis (in the femoral triangle)
3) ☐ radial
4) ☐ ulnar
5) ☑ brachial

224. Advantages of non-projected access to the components of the neurovascular bundle:

1)	☑	the direct risk of damage to an artery, vein or nerve is reduced
2)	☑	The neurovascular bundle is separated from the skin scar by a muscle
3)	☐	Non-projected access has no advantages
4)	☑	the nerve does not grow into the scar
5)	☐	the access accompanying the artery is accompanied through the posterior wall of the fascial sheath of the muscle

225. Ligature needles (Deschamps, Cooper) and dissectors in operations on organs of the neurovascular bundle are used for the purpose of:

1)	☐	displacement of the nerve from the artery and vein
2)	☑	isolation of the corresponding organ of the neurovascular bundle
3)	☐	compression of the vein accompanying
4)	☑	the artery ligature under the artery, vein, nerve
5)	☐	knot tying apodactyly

226. The main methods of ligation of a blood vessel include:

1)	☐	applying an Esmarch tourniquet
2)	☐	using a Blalock terminal
3)	☑	ligation of a bleeding vessel in a wound
4)	☐	using a turnstile
5)	☑	ligation of a blood vessel throughout

227. Anastomoses contribute to the restoration of blood circulation during ligation of the main artery:

1)	☑	intrasystemic (intraorgan) – anastomoses of branches of one main vessel
2)	☑	intersystemic (extraorgan) – anastomoses of various main arteries
3)	☑	arterial circle of the large brain
4)	☐	splenorenal in the treatment of portal hypertension
5)	☐	femoral-tibial shunt with occlusion of the femoral artery during canalis adductorius

228. Vascular suture requirements:

1)	☑	tightness
2)	☑	hemostasis
3)	☐	elasticity
4)	☑	thrombogenicity
5)	☑	scar stenosis is not allowed

229. The ends of the artery after their mobilization are brought closer due to:

1)	☐	the use of a fascial coupling
2)	☐	of vascular clamps (or Block terminals)
3)	☑	the natural elasticity of the walls
4)	☑	uniform stretching of the walls with sutures
5)	☐	the use of a patch made of synthetic material (Teflon)

230. Overgrowth of the walls of the ends of the artery is dangerous for complications:

1)	☐	spasm of the arteries of the same name on the opposite side
2)	☑	rupture of the inner shell

3) ☑ eruption of the suture of the wall thickness

4) ☑ thrombosis

5) ☑ necrosis of the wall in the early postoperative period

231. The cause of thrombosis of the vascular suture zone are:

1) ☑ detached and unfixed intima

2) ☐ surgical access to the vessel was incorrectly selected

3) ☑ the matching of the same-named shells of the ends of the vessel was not ensured

4) ☑ the outer shell was screwed into the lumen of the vessel

5) ☑ excessive trauma to the vessel wall during vasography

232. Types of vascular suture in relation to the artery wall (or vein):

1) ☑ lateral

2) ☐ eversion

3) ☑ linear

4) ☐ mattress

5) ☑ circular (circular)

233. The suture of a blood vessel can be performed in the following way:

1) ☐ adhesive

2) ☑ manual

3) ☑ mechanical

4) ☑ manual suture with biological glue (applied to the outer shell)

5) ☐ biological glue (applied to the outer shell)

6) ☐ using rings (D. A. Donetskoy, Nakayama)

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234. The diameter of the artery and the properties of its wall determine the choice of:

1) ☐ surgical access to the vessel

2) ☑ of the diameter of the suture material (monofilament non-absorbable polished synthetic thread)

3) ☑ needle (round atraumatic)

4) ☑ a set of instruments for macro- and microsurgical operations

5) ☐ the position of the patient on the operating table

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235. Tightness and hemostasis of the vascular suture are achieved

1) ☐ by connecting the ends of the vessel with inner shells

2) ☑ uniformity of stitches (seam pitch 1-2 mm)

3) ☑ the same distance of needle injection and puncture from the edge of the vessel (1 mm)

4) ☑ in conditions of pathologically altered vascular wall and suture of large arteries, the suture pitch and the distance of needle injection and puncture from the edge of the vessel are increased

5) ☐ by excision of the ends of the vessel with eye scissors, or with a safety razor blade in a hemostatic clamp

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236. A nodular vascular suture in children is necessary in order to:

1) ☑ ensure further growth of the artery, the organ of the tube, in length and diameter

2) ☑ eliminate the possibility of deformation of the vessel and change its lumen

3) ☐ reduce the time of surgical intervention

4) ☐ choose a simple surgical access for vasography

5) ☐ create conditions for intraoperative quality control of the vascular suture

237. A complete anatomical rupture of the nerve trunk is accompanied by the following symptoms:

1) ☑ Motor disorders. The position of the limb segment is determined by antagonist muscles that have retained innervation

2) ☑ violation of skin sensitivity in the territory of the distribution of the cutaneous branches of the nerve

3) ☑ vasomotor disorders followed by soft tissue atrophy

4) ☑ nerve ingrowth into scars (callus) with the development of pain syndrome

5) ☐ formation of regenerative neuroma at the central end of the nerve

238. The main purpose of surgical intervention in case of nerve rupture:

1) ☑ is to bring the ends of the nerve

2) ☐ closer together to ensure hemostasis in the cross section of the nerve

3) ☐ mobilization of nerve ends

4) ☑ creation of conditions for regeneration

5) ☐ careful suturing of the fascial sheath of the neurovascular bundle

239. After the initial surgical treatment of the wound, operations on nerve trunks are performed after 4-6 weeks, because:

1) ☑ the wound heals

2) ☑ under the influence of drug therapy, the scars undergo resorption

3) ☑ the risk of exacerbation of a "dormant" infection (microflora in the scar)

4) ☐ is reduced, the best cosmetic effect

5) ☐ is ensured, patients concentrate in specialized surgical departments

240. The nerve is isolated from the scar (neurolysis) by non-projection access, which allows:

1)	☑	to expose the nerve in unchanged topographic and anatomical conditions
2)	☑	to eliminate the possibility of damage to large blood vessels accompanying the nerve
3)	☐	the choice of access to the nerve in the scar area does not matter
4)	☑	to facilitate the separation of the nerve from the central and peripheral departments into the scar area
5)	☑	to avoid the formation of adhesions between nerve sheaths and soft tissues

241. According to the timing of neuroraphy, there are:

1)	☑	primary nerve suture (during primary surgical wound treatment)
2)	☐	during primary surgical wound treatment, nerve blockade is limited
3)	☑	to early delayed nerve suture (3-4 weeks after injury, if there were no conditions for primary suture during primary wound treatment)
4)	☐	primary nerve suture is not used
5)	☐	early delayed nerve suture does not provide satisfactory functional result

242. There are features in the technique of neuroraphy:

1)	☑	it is advisable to capture the external epineurium in the suture
2)	☑	the ends of the nerve are carefully matched (without twisting) to create conditions for selective regeneration of the axons of its central end
3)	☑	a 1 mm diastasis is left between the ends of the nerve to avoid compression of its bundles
4)	☑	nerve tension at the suture site is unacceptable
5)	☐	features of the technique of neuroraphy do not matter in achieving functional results

243. In relation to the membranes, the following types of nerve suture are distinguished:

1) ☑ epineural

2) ☑ perineural

3) ☐ through all layers

4) ☐ of the nodular nerve

5) ☐ “U”-shaped

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244. The convergence of the ends of the nerve for their connection is achieved by the following techniques:

1) ☑ flexion (or extension) of the limb segment

2) ☐ by additional mobilization of the ends

3) ☐ by fixing the ends of the nerve with strips of glove rubber

4) ☑ by shortening the trajectory of the nerve, moving it from one bed to another

5) ☐ by strengthening the suture zone with epineural flaps (plates)

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245. Rupture of nerve sutures is prevented:

1) ☑ by applying a plaster splint to the operated limb for 3-4 weeks

2) ☐ by wrapping the nerve suture area with a fibrin film (or a canned amniotic membrane)

3) ☑ using “U”-shaped sutures

4) ☑ strengthening the nerve suture with a coupling from the epineurium of the nerve ends

5) ☐ using a mechanical nerve suture

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246. Straight round atraumatic needles with tendon suture:

1) ☑ nylon thread

2) ☑ dacron thread

3) ☐ silk

4) ☐ catgut

5) ☑ metal wire (tantalum) are used to suture the tendon

247. Requirements for the suture of the tendon:

1) ☑ must ensure the strength of the connection of the ends of the tendon

2) ☑ compression of the blood vessels of the tendon

3) ☐ must be hemostatic

4) ☑ must not allow the tendon

5) ☑ to become loose, must create a smooth surface for the tendon to slide in the synovial vagina

248. Techniques that exclude the divergence of the tendon suture:

1) ☐ free tendon

2) ☑ plastering the imposition of additional “U”-shaped sutures

3) ☐ tendon plate with a tractus iliotibialis flap

4) ☑ immobilization of the limb with a plaster splint

5) ☐ capturing a larger volume of tendon into the seam

249. The adaptive suture of the flexor tendon of the fingers of the hand consists of:

1) ☑ a nodular suture connecting the ends of the tendon

2) ☐ suture fixing the distal end of the tendon

3) ☐ of the mattress suture

4) ☑ a suture that keeps the proximal end of the tendon from shifting due to muscle traction with its removal to the

skin of the palm

5) ☐ of a continuous wound suture

250. The basic rules for opening purulent foci:

1) ☑ opening the purulent cavity in the zone of greatest fluctuation

2) ☑ in order to avoid infection of the adjacent bed, it is unacceptable to dissect the intermuscular fascial septa

3) ☑ to ensure the completeness of the evacuation of pus and the removal of necrotic tissues

4) ☑ to treat the purulent cavity with an antiseptic solution and drain it

5) ☐ in layers to suture the wound

251. When opening a purulent lesion, the incision of soft tissues should be:

1) ☑ the shortest way to the purulent focus

2) ☑ outside the projection of the neurovascular bundle

3) ☑ is to ensure the completeness of the examination of the purulent cavity

4) ☐ if necessary, combine with the contraperture to

5) ☑ create a free outflow of pus

252. A contraperture (additional incision(s)) away from the main one is formed in order to:

1) ☑ complete the revision of the purulent cavity (are there pockets and foci of necrotic tissues?)

2) ☑ evacuation of pus when the main incision does not create conditions for adequate drainage of the purulent cavity

3) ☑ using a flow-washing drainage system

4) ☑ for visual monitoring of the healing processes

5) ☐ of laser treatment of the purulent cavity

253. Operations for purulent diseases of the fingers and hand are performed using:

1) ☑ conduction anesthesia of the own finger nerves at the base of the finger (A.I. Lukashevich, Oberst)

2) ☑ anesthesia

3) ☐ of spinal anesthesia

4) ☑ blockade of N. medianus, N. ulnaris and the superficial branch of N. radialis in the wrist

5) ☑ area conduction anesthesia of common finger nerves at the level of the horizontal line from the rear of the metacarpophalangeal joint of the I finger to the medial edge of the metacarpus (Braun, E.V. Usoltseva)

254. Exsanguination of the surgical area by applying a tourniquet for panaritia and tendovaginitis is due to:

1) ☑ the need for visual identification of foci of tissue necrosis

2) ☐ the choice of a method for radical removal of necrotized tissues

3) ☐ a decrease in blood loss

4) ☑ during necrectomy, to preserve neurovascular bundles, tendons, fascial septa

5) ☐ to create a "depot" of anesthetic solution

255. In subcutaneous panaritisation of the palmar surface of the distal phalanx of the finger, the following incisions are used:

1) ☑ "club-shaped" on the anterolateral surface

2) ☑ linear on the anterolateral surface

3) ☑ various combinations of "club-shaped" and linear incisions (Zegesser)

4) ☐ through the nail plate

5) ☐ along the midline of the palmar surface of the finger with continuation to the interphalangeal joint

256. Surgical interventions for paronychia (by Canavel) consists of stages:

1)	☑	incisions (1-1.5 cm) along the lateral edges of the nail plate in the proximal direction
2)	☑	of detachment of the skin flap to the base of the phalanx and excision of the pus-detached part of the nail plate
3)	☐	scraping of granulations is contraindicated
4)	☑	removal of necrotic tissues and granulations
5)	☑	a strip of glove rubber is placed under the flap and an aseptic bandage is applied

257. In case of a callous abscess after excision of the exfoliated epidermis, make sure that there is no

1)	☐	purulent fistula on the back of the hand
2)	☑	commissural phlegmon
3)	☑	of a subcutaneous abscess within the boundaries of the excised epidermis
4)	☐	phlegmons of the middle fascial bed of the palm
5)	☐	lymphadenitis of the apical axillary lymph nodes

258. The main local symptoms of tendovaginitis are:

1)	☑	uniform swelling of the finger with the spread of edema to the back of the hand
2)	☑	soreness along the entire length of the synovial vagina during palpation with a probe
3)	☑	severe pain that increases when the finger
4)	☐	is extended radiating pain into the deltoid region
5)	☑	the finger is fixed in the position of slight flexion

259. According to the classical Klapp method, in case of tendovaginitis of the II-IV fingers of the hand, incisions are made:

1) ☐ on the back of the interdigital

2) ☐ spaces on the anterolateral surfaces of the distal phalanx

3) ☑ on the anterolateral surfaces of the middle phalanx

4) ☑ on the anterolateral surfaces of the proximal phalanx

5) ☑ in the distal part of the palm, respectively, the proximal end of the synovial vagina at the level of the heads of the metacarpal bones

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260. Opening of the synovial vagina in tendovaginitis provides:

1) ☑ decompression of the tendon

2) ☑ visualization of the tendon (are there any foci of necrosis?)

3) ☑ elimination of intoxication of the body and

4) ☑ relief of pain reduction of the risk of thrombosis of blood vessels mesenteric tendons

5) ☐ insignificant amount of tendon injury

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261. In case of tendovaginitis of the thumb and tendobursitis of the radial synovial sac with a breakthrough of pus into the space of N.I. Pirogov, incisions are used:

1) ☑ anterolateral – on the proximal phalanx

2) ☑ an incision 1-2 cm laterally from the skin fold thenar, without entering the "forbidden" zone of the groove,

3) ☑ two incisions in the lower third of the forearm

4) ☐ the incision on the back of the first interdigital

5) ☐ space is longitudinal – on the palm in the III interdigital space

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262. In case of tendovaginitis of the little finger and tendobursitis of the ulnar synovial sac, complicated by the spread of pus into the space of N.I. Pirogov, incisions are used:

1)	☑	anterolateral – on the middle phalanx of the little finger
2)	☑	anterolateral – on the proximal phalanx
3)	☑	along the lateral edge of the hypothenar (drainage of the ulnar synovial sac)
4)	☑	two incisions in the lower third of the forearm (opening of the phlegmon of the space of N.I. Pirogov)
5)	☐	on the back of the hand, respectively, to the IV interdigital space

263. A strip of glove rubber for drainage of the synovial vagina from Klapp incisions is carried out between:

1)	☑	the anterior wall of the fibrous vagina of the tendon with the outer (parietal) plate of the synovial layer
2)	☐	the skin
3)	☐	of the middle and proximal bone phalanges
4)	☑	tendon with an inner (visceral) plate of the synovial layer
5)	☐	palmar aponeurosis

264. The anatomical basis for the development of the "U"-shaped (cross) phlegmon of the hand in tendovaginitis of the I and V fingers of the hand is that:

1)	☑	in 10% of cases, the radial and ulnar sacs communicate directly with each other
2)	☐	in the sacs, the pressure changes when the I and V fingers of the hand
3)	☑	are extended in the carpal canal, the sacs are closely adjacent to each other – due to the melting of the wall, pus breaks into the adjacent sac
4)	☐	with the accumulation of exudate in the bags, the pressure increases sharply
5)	☐	the pressure change in the radial and ulnar synovial sacs does not relate to the anatomical basis of the "U"-shaped phlegmon

265. An intradermal abscess, as a result of infection of the corn, can be complicated by:

1)	☐	the swelling of pus into the lateral bed of the palm
2)	☑	the phlegmon of the interdigital
3)	☑	space, the spread of the purulent process (through the commissural opening) into the middle bed of the palm
4)	☐	the breakthrough of pus into the ulnar synovial sac
5)	☑	the spread through the channels of the vermiform muscles to the back of the hand

266. The scope of surgical intervention for suppurated calluses consists in:

1)	☑	radical excision of the exfoliated epidermis (without overhanging edges)
2)	☑	palpation of the area of the corn abscess with a button probe
3)	☐	application of an incision of the interdigital fold from the palm side
4)	☑	in the presence of a purulent cavity – open and drain the purulent focus in the subcutaneous base
5)	☐	dissect the interdigital fold from the back

267. The stages of opening and drainage of the subfascial phlegmon of the thenor bed:

1)	☑	an incision (4-5 cm) parallel and laterally from the projection of the tendon m. flexor pollicis longus
2)	☑	to drain the gap between the muscle leading the thumb and the I dorsal interosseous muscle, make an incision along the I interdigital fold
3)	☐	open the space of N.I. Pirogov
4)	☑	strips of glove rubber are inserted into the incisions
5)	☑	and the fingers are fixed in a half-bent position with the thumb as far away as possible

268. The phlegmon of the middle fascial bed of the palm according to V.F. Voino-Yasenetsky is opened in the following way:

1)	☑	longitudinal incisions of the skin, subcutaneous base and own fascia are made thenar medially from the

projection of the tendon m.flexor pollicis longus and along the elevation of the little finger

2)	☑	into the middle bed of the palm penetrate bluntly through the lateral and medial fascial septa
3)	☑	strips of glove rubber are inserted into the subaponeurotic (through both incisions
4)	☐	strips of glove rubber are inserted into the lateral bed of the palm
5)	☑	of the hand and the fingers are fixed on the tire in a semi-bent position

269. The scope of surgical intervention for subaponeurotic phlegmon of the back of the hand consists in:

1)	☑	layered incision of the skin, subcutaneous base, superficial and own fascia over the II and IV metacarpal bones
2)	☐	incision of soft tissues, respectively, III metacarpal space
3)	☑	treatment of the purulent cavity with an antiseptic solution
4)	☑	introduction of strips of glove rubber into both incisions
5)	☑	immobilization of the hand in a semi-bent position

270. The phlegmon of the upper third of the forearm bed is approached between:

1)	☐	the ulna
2)	☐	and the ulnar flexor of the wrist
3)	☑	m. flexor pollicis longus
4)	☐	m. flexor carpi radialis
5)	☑	radius

271. The stages of opening the posterior bed of the forearm:

1)	☑	incision of the skin, subcutaneous base, superficial fascia laterally from the posterior edge of the ulna, its
2)	☑	own fascia is dissected between the m.extensor digitorum and the extensor of the little finger

3)	☐	to the phlegmon
4)	☑	a strip of glove rubber is inserted between the superficial and deep layers of muscles
5)	☑	a strip of glove rubber is inserted under the deep muscles of the posterior forearm beds

272. The phlegmon of the anterior shoulder bed is opened with incisions (10-12 cm):

1)	☑	along the medial edge m.
2)	☐	biceps brachii biceps brachii is dissected transversely
3)	☑	along the lateral edge of m.
4)	☐	biceps brachii biceps brachii is divided along the course of fibers
5)	☐	by sulcus bicipitalis medialis

273. The phlegmon of the posterior shoulder bed is opened by incisions (10-12 cm):

1)	☑	along the lateral edge of m.triceps brachii, excluding damage to the terminal branches of n. radialis
2)	☐	they bluntly penetrate into the gap between the triceps muscle and the humerus
3)	☐	the triceps shoulder muscle is divided along the fibers
4)	☑	along the medial edge of m.triceps brachii
5)	☐	the triceps shoulder muscle is dissected in the transverse direction

274. With phlegmon of the axillary fossa, complicated by edema to its apex, the following actions are performed:

1)	☑	an incision parallel to the clavicle (according to V.F. Voino-Yasenetsky)
2)	☐	is separated along the course of the fibers of M.deltoideus
3)	☑	the large and small pectoral muscles and their fascia are dissected
4)	☑	fascia clavipectoralis is dissected along a grooved probe

5) ☐ and drainage is introduced into a four-sided hole

275. The flow of pus into the scapular space as a complication of the phlegmon of the axillary fossa is opened as follows:

1) ☑ an incision is bordered by the angle of the scapula

2) ☐ the trapezoidal, small and large diamond-shaped and anterior dentate muscles are dissected

3) ☐ along the fibers. m. deltoideus

4) ☑ bluntly penetrate between the chest wall and the anterior (costal) surface of the scapula with the scapular muscle

5) ☐ to the purulent focus penetrate through the trepanation opening of the scapula

6) ☑ drains are installed in all sections

276. Subpectoral phlegmons can be a complication of:

1) ☑ purulent panaritia of the I, II and III fingers of the hand (lymphogenically)

2) ☑ phlegmons of the submandibular space

3) ☑ phlegmons of the hand (lymphogenically)

4) ☑ phlegmons of the axillary fossa

5) ☐ purulent arthritis (purulent inflammation of the shoulder joint)

277. The technique of opening the subpectoral phlegmon:

1) ☐ the purulent focus is approached by disconnecting m. pectoralis major along the course of the fibers

2) ☑ an incision along the lower edge of the pectoralis major muscle

3) ☑ is accessed by a layered incision

4) ☑ to the purulent focus is approached anteriorly from the suspensory ligament of the armpit

5) ☐ the suspensory ligament of the armpit is dissected for 4-5 cm

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278. Incisions with deep phlegmon of the sole are performed in the middle third of the lines corresponding to the projections:

1) ☐ the transverse joint of the foot

2) ☐ I-th metatarsal bone

3) ☐ The V-th metatarsal

4) ☑ of the medial fascial septum

5) ☑ of the lateral fascial septum

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279. Delorme incisions with deep phlegmon of the sole have the following advantages:

1) ☑ incisions outside the main support points of the foot

2) ☑ do not damage plantar aponeurosis

3) ☐ the risk of damage to the n.tibialis is eliminated

4) ☑ the short flexor of the fingers is not damaged

5) ☑ the integrity of the lateral and medial plantar neurovascular bundles is preserved

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280. The deep phlegmon of the posterior region of the lower leg is opened as follows:

1) ☐ an incision along the midline of the lower leg area throughout its

2) ☑ entire length, an incision in the upper third of the lower leg, retreating 2 cm from the medial edge of tibiae (v.saphena magna is displaced by a hook)

3) ☑ the medial head of the calf muscle is pulled back and the flounder muscle is cut off from the tibia

4) ☑ in the lower third, a contraperture is formed by dissecting the layers of the area, including a deep plate of the fascia of the shin

5) ☑ strips of glove rubber are inserted into the upper and lower incisions

281. The subdeltoid phlegmon is opened by incision along:

1) ☐ the cranio-brachial muscle

2) ☑ the anterior edge of the deltoid muscle, the

3) ☐ edge of the latissimus dorsi

4) ☐ muscle, the lower edge of the pectoralis major muscle

5) ☑ the posterior edge of the m.deltoideus

282. The phlegmon of the anterior thigh bed is opened as follows:

1) ☑ a layered incision along the lateral edge of the rectus femoris

2) ☐ muscle a layered incision along the lateral edge of the sartorial muscle

3) ☑ the wide fascia of the thigh is dissected between the rectus and lateral broad muscles

4) ☐ in the transverse direction, the rectus femoris is dissected

5) ☑ with paraossal (circumflex) femoral phlegmon through the gap between the rectus and lateral broad muscles along the fibers, the intermediate the wide thigh muscle

283. Stages of opening the phlegmon of the gluteal region:

1) ☑ incision of the skin, subcutaneous base and superficial fascia along the line from the upper posterior iliac spine to the tip of the large trochanter

2) ☑ after dissection of the gluteal fascia along the fibers, the gluteus maximus muscle is stratified

3) ☑ if necessary, a contraperture is formed at the lower border of purulent congestion in the posterior thigh region or at the large trochanter

4) ☐ when opening the phlegmon of the gluteal region, the contraperture is not

5) ☑ a wound is used through m. gluteus maximus can be sutured before drainage; drains are left in contrapertures

284. When forming a lateral contraperture for drainage of the posterior depressions (inversions) of the knee joint, there is no danger of dissection of nerves:

1) ☐ n. ischiadicus

2) ☐ n. cutaneus surae lateralis

3) ☐ of the common fibular

4) ☐ tibial

5) ☐ n. saphenus

285. The puncture of the elbow joint is performed in the posterolateral section – in a triangle bounded by:

1) ☑ the lateral condyle of the humerus

2) ☐ deltoid tuberosity

3) ☑ olecranon

4) ☐ ulnar nerve sulcus

5) ☑ caput radii

286. The puncture point of the wrist joint is determined by the intersection on its back surface:

1) ☐ the axes of the radius and I metacarpal bones

2) ☐ the axes of the ulna and pea bones

3) ☑ the line between the styloid processes radius et ulna

4) ☑ the axis of the II metacarpal bone

5) ☐ above the neck of the radius

287. Articulatio coxae is punctured at the points corresponding to:

1) ☐ sciatic tubercle

2) ☐ trochanter minor

3) ☑ at the apex of trochanter major

4) ☑ is the middle of the distance between the middle of the linea spinosymphisialis et trochanter major

5) ☐ of the Roser-Nelaton line

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288. Puncture of the knee joint at the lateral edge of the base of the patella ensures that the needle enters:

1) ☐ deep subcutaneous bursa

2) ☐ subcutaneous bursa of tuberosity of the tibia

3) ☑ suprapatellar bursa

4) ☐ subcutaneous pre-patellar bursa

5) ☑ joint cavity

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289. In arthrotomy of the shoulder joint, the muscles are separated by hooks with an anterior Langenbeck access:

1) ☐ the subclavian

2) ☑ deltoid

3) ☐ triceps of the shoulder

4) ☐ the long head of the biceps of the shoulder

5) ☑ the large pectoral

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290. Arthrotomy – opening of the joint cavity – is performed for the purpose of:

1) ☑ drainage of the cavity in case of purulent inflammation

2) ☑ aseptic operations in the joint cavity

3) ☑ removal of a foreign body

4) ☐ opening of the phlegmon of the bone-fibrous beds of the scapula

5) ☐ reduction of hip dislocation

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291. Operative access to the joint cavity can be carried out by:

1) ☑ arthroscopy

2) ☐ of the intramuscular approach

3) ☐ resection of articular surfaces

4) ☐ of the intermuscular approach

5) ☑ arthrotomy

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292. Surgical technique – joint resection – consists in:

1) ☑ excision of articular surfaces of articulating bones

2) ☑ removal of intra-articular ligaments

3) ☐ removal of extra-articular ligaments

4) ☑ excision of the capsule of the joint with the synovial membrane

5) ☑ removal of fibrous cartilaginous plates (meniscus, disc)

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293. Arthrodesis is fundamentally different from arthroplasty:

1) ☐ the type of surgical access to the joint cavity

2) ☐ by resection of articular surfaces

3) ☑ during arthrodesis is carried out by comparison of articular surfaces and osteosynthesis

4) ☐ removal of fibrous cartilaginous plates

5) ☑ during arthroplasty provides interposition of articulating bones and early mechanotherapy of the "new" joint

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294. Rules for performing surgical access to long tubular bones:

1) ☑ away from the neurovascular bundle

2) ☐ by a projection approach

3) ☑ along the intermuscular spaces, furrows and fascial septa - intermuscular access

4) ☐ by an extra-projection approach

5) ☑ in the area with the smallest thickness of the muscular layer- intramuscular access

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295. The landmarks of one of the low-traumatic accesses to the femur are:

1) ☐ small spit

2) ☐ Ken's line

3) ☑ Trochanter majus

4) ☐ The Roser-Nelaton line

5) ☑ is the lateral condyle of the femur

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296. Principles of surgical treatment of osteomyelitis:

1) ☑ radical surgical treatment of a purulent focus

2) ☐ puncture of a joint adjacent to the focus of inflammation

3) ☑ plastic bone defect

4) ☑ plastic defect of soft tissues surrounding the bone

5) ☑ immobilization of the limb

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297. Types of surgical treatment of a purulent necrotic lesion in osteomyelitis:

1)	☑	sequestrectomy – removal of bone sequesters
2)	☑	sequestrnecrectomy – excision of fistulas together with sequesters
3)	☑	trepanation of long tubular bone with sequestrnecrectomy – opening of the bone marrow canal with removal of sequesters and non-viable tissues
4)	☑	bone resection – removal of non-viable and infected areas of bone
5)	☐	arthrotomy of the joint

298. Indications for osteotomy are:

1)	☑	elimination of deformities of long tubular bones of various origins (rickets, improperly fused fracture)
2)	☑	correction of limb position in arthrogenic contractures (varus and valgus character)
3)	☐	coxarthrosis
4)	☑	limb elongation limb
5)	☑	shortening

299. The form of osteotomy is chosen taking into account the following conditions:

1)	☑	bone fragments should touch on a larger area
2)	☐	it is necessary to use a terminal for skeletal traction
3)	☑	it is necessary to ensure stable retention of bone fragments in a given position
4)	☐	osteotomy should be performed with a wire saw
5)	☐	to ensure thorough hemostasis

300. In operative orthopedics, such types of osteotomy are used as:

1)	☑	linear and angular
2)	☑	transverse and oval
3)	☑	oblique (in various planes)
4)	☑	“Z” – shaped and curly
5)	☐	osteotomy does not matter in obtaining good results

301. Requirements for operative access to bone for osteotomy:

1)	☑	bone exposure from a small incision based on data on the topographic and anatomical situation
2)	☐	projection access is used to approach the bone
3)	☑	it is unacceptable to skeletonize the bone over a long distance and especially to separate the periosteum
4)	☐	for an approach to the bone, an out-of-projection access is used
5)	☐	osteotomy from a small incision requires the use of an oscillating or ultrasonic saw

302. Stable osteosynthesis after osteotomy is achieved by:

1)	☐	bone nails
2)	☑	metal structures
3)	☑	compression and distraction devices
4)	☐	limb bandaging
5)	☐	using various types of ligatures

303. Stages of segmental osteotomy:

1)	☑	exposure of the corresponding bone segment
2)	☑	displacement (compression) of soft tissues by elevators, hooks, etc. from bone

3)	☑	removal of a bone segment using an oscillating or wire saw, osteotomy
4)	☐	trepanation of bone with filling of the cavity with biological material
5)	☑	reposition (comparison) of bone fragments followed by osteosynthesis by one of the accepted methods

304. Bone trepanation is an operative access to an intraosseous pathological focus:

1)	☑	a cyst
2)	☑	of a benign tumor
3)	☑	a foreign body
4)	☑	an osteomyelitic focus and a sequester
5)	☐	a foreign body of the joint cavity

305. Bone trepanation is performed by:

1)	☐	electric circular saw
2)	☑	drill (in acute hematogenous osteomyelitis)
3)	☐	ultrasonic bone cutting
4)	☑	osteotome
5)	☐	Olivecron wire saw

306. During bone trepanation, one should strive to ensure that the bone cavity has gentle edges, i.e. the shape of a “trough”:

1)	☑	the overhanging edges of the bone wound are a source of necrosis
2)	☐	it is impossible to give the bone wound a trapezoidal shape due to bone destruction
3)	☑	better conditions are created for tamponade of the bone wound by surrounding tissues

4) ☐ sharp overhanging edges injure the surrounding soft tissues

5) ☑ the edges of the bone wound receive adequate blood supply

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307. After sequestrectomy, the bone cavities are filled with:

1) ☑ biological materials: bone, cartilage

2) ☐ adipose tissue

3) ☑ artificial materials, for example, gypsum

4) ☐ fascial flap

5) ☑ muscle flap on the vascular “leg” in combination with antibiotic therapy

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308. Name the methods of osteosynthesis:

1) ☑ extramedullary

2) ☑ intramedullary

3) ☑ out-of-focus using compression-distraction devices

4) ☑ combined – a combination of extra- and intramedullary osteosynthesis

5) ☐ plaster dressing

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309. Rules for fixing a metal plate with screws during extramedullary osteosynthesis:

1) ☑ the diameter of the hole should be 1-2 mm smaller than the diameter of the screw

2) ☐ the screw is inserted through one cortical plate

3) ☑ the screw is immersed strictly perpendicular to the axis of the bone

4) ☐ the diameter of the screw hole should be larger than the diameter of the screw

5) ☑ the screw should pass through both cortical plates without going outside

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310. The essence of the "closed" method of intramedullary osteosynthesis consists in:

1)	☑	insertion of a metal rod into the bone marrow canal
2)	☑	driving the rod under X-ray control
3)	☑	immersion of the rod without exposing the bone
4)	☑	insertion of the rod from the proximal or distal metaphysis
5)	☐	using Kirchner spokes

311. Basic requirements for osteosynthesis:

1)	☑	careful reposition of bone fragments along the axis and along the plane
2)	☑	reliable fixation of bone fragments for a long period of bone regeneration
3)	☑	ensuring a slight degree of compression of bone fragments
4)	☑	interposition is unacceptable – the presence of fatty tissue, fascia, etc
5)	☐	interposition is possible between bone fragments

312. Bone resection is indicated for:

1)	☑	pathological processes: tumors, terminal post-traumatic osteomyelitis
2)	☐	congenital dislocation of the hip
3)	☑	bone deformity requiring removal of part of this organ
4)	☑	bone shortening
5)	☑	autograft removal

313. According to the difference in indications and tasks, the following types of bone resection are distinguished:

1)	☑	subcostal

2) ☐ sequestrectomy

3) ☑ periosteal

4) ☑ marginal

5) ☑ segmental

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314. Marginal bone resection is used:

1) ☑ with the marginal localization of the pathological focus

2) ☐ coxa vara

3) ☑ as an operative access to an intraosseous located foreign body

4) ☐ in case of an improperly fused fracture

5) ☐ with congenital dislocation of the hip

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315. Segmental bone resection for a tumor has the following methods of completion:

1) ☑ the resulting bone defect is not replaced

2) ☑ bone grafting is performed

3) ☐ osteotomy is performed

4) ☐ the ends of bone fragments are treated

5) ☐ and thorough hemostasis is ensured

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316. The traditional sites of autograft sampling for bone grafting are:

1) ☐ gluteal tuberosity

2) ☑ of the femur tibia

3) ☑ crest of the ilium

4)	☐	lateral condyle of the humerus
5)	☑	less often – fibula

317. The bone grafting on the vascular pedicle is based on the following principle:

1)	☑	the graft is taken (more often the fibula) together with the artery supplying it
2)	☑	the graft artery is connected using microsurgical technique to the branch of the nearest artery
3)	☐	the graft is fixed with a tractus iliotibialis flap, the
4)	☐	graft is strengthened with a Linen plate
5)	☐	the graft is fixed with plaster

318. Intramedullary osteosynthesis using pins and screws is characterized by:

1)	☑	stable connection of bone fragments
2)	☑	release of the patient from postoperative plaster immobilization
3)	☐	during orthopedic operations, the ability to combine intramedullary osteosynthesis with extramedullary bone grafting, requiring additional external fixation of the limb
4)	☑	after bone fusion, the pin must be removed, i.e. another operation is required
5)	☐	after the formation of a callus, the pin remains in the bone marrow canal

319. For intramedullary osteosynthesis, fixators (pins, screws) are used from:

1)	☑	metal alloys
2)	☑	metal polymer
3)	☑	polymer
4)	☑	pins, which eventually undergo resorption with the removal of decomposition products from the body

5) ☐ bone pins

320. The stages of antegrade insertion of the pin into the diaphysis of the femur:

1) ☑ in the area of the false joint, bone fragments are separated and their ends are treated

2) ☑ retrograde, a conductor is inserted into the medullary canal of the proximal fragment

3) ☑ a large spit is perforated with a conductor

4) ☑ soft tissues are dissected above the end of the conductor and, having installed a pin on it, it is punched into the distal fragment

5) ☐ for osteosynthesis, the Ilizarov apparatus is used

321. The stages of retrograde immersion of the pin into the diaphysis of the femur:

1) ☑ the pin is hammered from the side of the exposure of the fracture site into the proximal bone fragment until the formation of a protrusion of soft tissues above the trochanter major

2) ☑ above the large spit, soft tissues are dissected above the protrusion

3) ☑ bone fragments are repositioned along the axis

4) ☑ the pin is driven in the opposite direction into the distal fragment

5) ☐ for osteosynthesis, a compression-distraction apparatus is used

322. Rules for the introduction of spokes for osteosynthesis by Ilizarov and Kalnberz devices:

1) ☑ the spokes are inserted transversely cruciform and fixed in rings or arcs

2) ☑ the skin, before piercing with a spoke, is maximally shifted in the direction opposite to the intended displacement of the ring of the apparatus

3) ☑ soft tissues are pierced with a spoke from the side where there are no neurovascular bundles

4) ☑ when carrying a spoke through flexor muscles, the limb must be it is unbent; when carried through extensors, it is bent

5) ☐ for free access to the limb segment from all sides, the limb is placed on the lining

323. With the help of a compression-distraction apparatus, for example, Ilizarov, they achieve:

1) ☑ reposition of bone fragments

2) ☑ their reliable fixation

3) ☑ elimination of displacement of the ends of fragments at an angle

4) ☐ immobilization of the limb

5) ☑ light compression at the fracture site to stimulate osteogenesis; subsequently, distraction

324. Osteosynthesis of the femur with an external fixation device consists of the following:

1) ☑ on the proximal and distal fragments, 3 transverse channels are formed with a drill

2) ☑ Rods with screw thread are inserted into the channels of each of the fragments at the end

3) ☑ of the rods are connected with special rods that allow compression of fragments

4) ☑ with an infected false joint of the femur osteosynthesis with an external fixation device is the method of choice

5) ☐ it is necessary to ensure that so that the pins do not pass through the projection of the neurovascular bundle

325. When amputating a limb after separate isolation of the main arteries and veins, they are treated as follows:

1) ☑ apply a central (first) ligature – ligation of the vessel with a thick catgut thread

2) ☐ two clips are applied to the ends of the artery and veins

3) ☐ the ends of the main vessels are stitched with

4) ☑ a vasoconstrictor, a peripheral (second) ligature is applied – the vessel is stitched

5) ☐ and the ends of the artery and veins are tied on both sides crushed with a hemostatic clamp

326. Depending on the duration, the following types of amputations are distinguished:

1)	☑	primary – in the form of primary surgical treatment of the wound within 24 hours after the injury
2)	☑	secondary – at a later date (7-8 days), in cases where the injury, which did not give indications for amputation, was complicated by a life-threatening process (anaerobic infection)
3)	☐	bone and plastic amputation according to Gritti-Shimanovsky
4)	☑	the final femur (primary and secondary) is indicated in the absence of grounds for the development of dangerous inflammatory complications and the formation of a stump unsuitable for prosthetics
5)	☑	reamputation is performed with a "vicious" cult formed after primary amputation

327. Features of bone processing during amputation of the tibia:

1)	☑	the fibula is sawn 2 cm proximal to the cut of the tibia
2)	☑	with high amputations of the tibia, the fibula is
3)	☑	to be removed from the tibia, the protruding anterior edge is removed at an angle of 45 °
4)	☐	more- and the fibula is dissected at the same level
5)	☑	the edges of the tibial bone sawdust are rounded with a rasp after removal of the anterior edge

328. When amputating a limb, the following methods of processing the periosteum and bone are used:

1)	☑	aperiostal – the length of the bone sawdust without the periosteum is 3-5 mm
2)	☐	periosteal – the level of dissection of the periosteum corresponds to bone
3)	☑	sawdust subperiostal – bone sawdust is closed with a periosteal cuff the
4)	☐	periosteum and bone are not treated
5)	☐	bone sawdust is closed with a musculoskeletal flap

329. The essence of the "vicious" stump, explaining the impossibility of using a prosthesis, is that:

1) ☑ a conical stump develops

2) ☑ bone sawdust protrudes from soft tissues

3) ☑ with a circular amputation method, "bear ears" are formed - angularly protruding edges of the amputation stump

4) ☑ on the working (supporting) surface of the stump, scarred soft tissues with ulceration

5) ☐ occur, guillotine amputation is performed at the level of the middle third of the thigh

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330. "No amputation requires so much consideration, so much common sense and the attention of a doctor as a rational, clear compilation of indications for amputation" (N.I.Pirogov) because this is:

1) ☑ a crippling, i.e. disabling operation

2) ☑ emotional and mental trauma

3) ☐ hemostasis surgery

4) ☑ neurosurgical surgery

5) ☑ vascular surgery

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331. Repeated amputation, re-amputation, is characterized by the fact that it

1) ☑ is performed at a higher level of the same limb

2) ☑ due to the anatomical and functional unsuitability of the stump after amputation in the past

3) ☐ it is performed with gas gangrene

4) ☑ the purpose is to reconstruct the amputation stump to adapt to the use of a prosthesis

5) ☐ they are performed according to the three-stage method of N.I. Pirogov

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332. Post-amputation pain: phantom, hyperesthesia of the stump, causalgic syndrome is a consequence of:

1) ☑ the formation of a neuroma at the end of the nerve trunk

2)	☐	causalgic pain does not subside under the influence of painkillers
3)	☑	ingrowth of the end of the nerve into the scars of the amputation stump or the formation of intracarvular scars
4)	☑	nerve irritation osteophytes or intracarvular foreign body
5)	☑	ascending infectious neuritis

333. In the process of limb amputation, gentle treatment of the nerve is required:

1)	☑	an anesthetic solution of 1-2 ml (1-2%) is injected into the nerve stump
2)	☑	It is unacceptable to pull the nerve out of the soft tissues of the stump; the nerve is extracted, the
3)	☐	nerve is crushed with a hemostatic clamp
4)	☑	with high nerve truncation, muscle atrophy with trophic skin ulcers and contracture may develop
5)	☑	in the case of low nerve truncation – its end grows into scars

334. Rules for secondary nerve truncation, including large cutaneous ones, during limb amputation:

1)	☑	nerve truncation is performed after dissection of soft tissues and bone
2)	☑	the nerve is held without pulling from the muscles with anatomical tweezers and infiltrated with a solution of novocaine (1-2%)
3)	☐	the nerve trunk is dissected with Cooper scissors
4)	☑	depending on the level of amputation and the thickness of the nerve, it is crossed strictly perpendicular to one with a blow of a safety razor blade proximal to the muscles
5)	☑	the bleeding nerve vessels are bandaged with a thin ligature of absorbable suture material

335. Features of limb truncation in children:

1)	☑	exarticulation has an advantage, which ensures the preservation of bone growth in length; to ensure the commensurability of bone and soft tissue growth, antagonist muscles are connected over bone sawdust or their ends are sewn to the periosteum of sawdust

2)	☑	there is no commensurability of soft tissue and bone growth – bones grow faster, which is accompanied by the development of a conical stump ("physiological taper" it is
3)	☐	advisable to use cone-plastic amputations
4)	☑	The radius and fibula grow faster than the ulna and tibia, increasing the taper
5)	☑	flap amputations are preferred; flaps of the flexor regions, due to their greater contractility, should be longer than those on the extensor