

1. A 10-year-old child complains of weakness, nausea, irritability. Helminthes of while color and 5-10 mm long were found on the underwear. On microscopy of the scrape from the perianal folds achromic ovums of unsymmetrical form were revealed. Indicate what helminth is parasiting on the child?

- a. Trichuris
- b. Ancylostoma duodenalis
- c. Enterobins vermicularis
- d. Trichina
- e. Ascaris lumbricoides

2. A patient has been brought to the hospital with the complaints of headache, pain in left hypochondrium. He has been ill for 1,5 weeks. The sudden illness began with the increase of body temperature up to 39.9C. In 3 hours the temperature decreased and hydropoiesis began. The attacks repeat rhythmically in 48 hours. The patient had visited one an African country. The doctors have suspected malaria. What method of laboratory diagnostics is necessary to use?

- a. Immunological tests
- b. Examination of vaginal and urethral discharge
- c. Urine examination
- d. Blood examination
- e. Stool examination

3. Slime, blood and protozoa 30-200 microns of length have been revealed in a mans feces. The body is covered with ciliars and has correct oval form with a little bit narrowed forward and wide round shaped back end. On the forward end a mouth is visible. In cytoplasm there are two nucleuses and two short vacuoles. For whom are the described attributes typical?

- a. Balantidium
- b. Dysenteric amoeba
- c. Intestinal amoeba
- d. Trichomonas
- e. Lamblia

4. A patient in three weeks after acute myocardial infarction has pain in the heart and joints and pneumonia. What is the main mechanism of development of post-infarction Dressler

- a. Ischemia of myocardium
- b. Secondary infection
- c. Vessels thrombosis
- d. Autoimmune inflammation
- e. Resorption of enzymes from necrotized area of myocardium

5. During the fetal period of the development in the vascular system of the fetus large arterial (Botallus) duct is functioning which converts into lig. arteriosum after birth. What anatomical formations does this duct connect between each other?

- a. Right and left auricle
- b. Pulmonary trunk and superior vena cava
- c. Aorta and superior vena cava
- d. Pulmonary trunk and aorta
- e. Aorta and inferior vena cava

6. a.

- b.
- c.
- d.
- e.

7. Children often have heavy nasal breathing resulting from excessive development of lymphoid tissue of pharyngeal mucous membrane. What tonsils growth may cause this effect?

- a. Tonsilla lingualis
- b. Tonsilla palatina
- c. Tonsilla pharyngea

- d. Tonsilla tubaria
- e. All above mentioned tonsils

8. In course of laparotomy a surgeon revealed gangrenous lesion of descending colon. It was caused by thrombosis of the following artery:

- a. Median colic
- b. Ileocolic
- c. Superior mesenteric artery
- d. Sinister colic**
- e. Dexter colic

9. Three separate bones connected with cartilage in the area of pelvis cavity are noticed on the X-ray of the pelvis. What are these bones?

- a. Sciatic, femoral, sacral
- b. Pubic, sciatic, femoral
- c. Iliac, pubic, sciatic**
- d. Iliac, sacral, coccyx
- e. Sacral, pubic, coccyx

10. A 60-year-old patient has reduced perception of high-frequency sounds. What structures disorder of auditory analyzer caused these changes?

- a. Muscles of middle ear
- b. Tympanic membrane
- c. Main membrane of cochlea near helicotrema
- d. Eustachian tube
- e. Main membrane of cochlea near the oval window**

11. The alveolar ventilation of the patient is 5 L/min, the breath frequency is 10 per/min, and the tidal volume is 700 ml. What is the patients dead space ventilation?

- a. -
- b. 2,0 L/min**
- c. 1,0 L/min
- d. 0,7 L/min
- e. 4,3 L/min

12. During investigation of patient, it was found formation in the white substance of cerebral hemispheres with location in the knee and frontal part of posterior crus of internal capsule. Fibres of what conductive tract of the brain will be disrupted?

- a. Tr. frontopontinus
- b. Tr. parietooccipitopontinus
- c. Tr. frontothalamicus
- d.
- e. Tr. pyramidalis**

13. Only one factor can influence the charge of amino acid radicals in the active centre of enzyme. Name this factor:

- a. The presence of a competitive inhibitor
- b. The surplus of a product
- c. Pressure
- d. Temperature
- e. pH medium**

14. Succinate dehydrogenase catalyses the dehydrogenation of succinate. Malonic acid $\text{HOOC}-\text{CH}_2-\text{COOH}$ is used to interrupt the action of this enzyme. Choose the inhibition type:

- a. Limited proteolysis
- b. Dephosphorylation
- c. Allosteric
- d. Non-competitive

e. Competitive

15. The gluconeogenesis is activated in the liver after intensive physical trainings .What substance is utilized in gluconeogenesis first of all in this case:

- a. Glutamate
- b. Alanine
- c. Pyruvate
- d. Glucose

e. Lactate

16. A patient with a stab wound of the anterior stomach wall is in surgical care. What formation of abdominal cavity did the stomach contents get into?

- a. Hepatic bursa
- b. Omental bursa

c. Antegastric bursa

- d. Left mesenteric sinus
- e. Right mesenteric sinus

17. A patient had been taking glucocorticoids for a long time. When the preparation was withdrawn he developed the symptoms of disease aggravation, decreased blood pressure and weakness. What is the reason of this condition?

- a. Sensibilization
- b. Hyperproduction of ACTH

c. Appearance of adrenal insufficiency

- d. Habituation
- e. Cumulation

18. A patient has tissue ischemia below the knee joint accompanied with intermittent claudication. What artery occlusion should be suspected?

- a. Posterior tibial artery
- b. Peroneal artery

c. Popliteal artery

- d. Anterior tibial artery
- e. Proximal part of femoral artery

19. A patient, who suffers from congenital erythropoietic porphyria, has skin photosensitivity. The accumulation of what compound in the skin can cause it?

a. Uroporphyrinogen 1

- b. Uroporphyrinogen 2
- c. Heme
- d. Coproporphyrinogen 3
- e. Protoporphyrin

20. A patient has a malignisation of thoracic part of esophagus. What lymphatic nodes are regional for this organ?

a. Anulus lymphaticus cardiae

- b. Nodi lymphatici prevertebralis
- c. Nodi lymphatici mediastinales posteriores
- d. Nodi lymphatici pericardiales laterales
- e. Nodi lymphatici paratrachealis

21. The patient has come to the hospital from the smelting workshop in the condition of hyperthermia. What is the direct cause of loss of consciousness at the heat stroke?

- a. Decrease of heart output
- b. Dilatation of peripheral vessels
- c. Arterial pressure drop
- d. Increased water loss through sweating

e. Decreased brain blood supply

22. A patient's blood was analyzed and the decreased erythrocyte

- a. Vitamin B deficiency
- b. Myocardial infarction
- c. Hepatitis
- d. Splenomegaly
- e. Polycythemia**

23. A 55-year-old patient was hospitalized in result of the trauma of the medial group of femoral muscles. What kind of movements is the patient unable to do?

- a. Extension of femur
- b. Supination of femur
- c. Abduction of femur
- d. Flexion of femur
- e. Adduction of femur**

24. A mother of a newborn complains of her baby's constant belching with undigested milk. Which developmental anomaly is it an evidence of?

- a. Anal atresia
- b. Esophageal fistula
- c. Labium leporium
- d. Faux cleft
- e. Esophageal atresia**

25. During the endoscopy the inflammation of a major papilla of the duodenum and the disturbances of bile secretion were found. In which part of duodenum were the problems found?

- a. Bulb
- b. Ascendant part
- c. Descendant part**
- d. Upper horizontal part
- e. Lower horizontal part

26. A 18-year-old patient came to the out-patient department with the complaints of bleeding trauma in the vestibule of his nose. On examination: the mechanical injury of the mucous layer of the vestibule without continuation into nasal cavity proper. What is the boundary between the vestibule and nasal cavity proper?

- a. Nostrils
- b. Nasal limen**
- c. Nasal septa
- d. Nasal roller
- e. Choanes

27. A 32-year-old patient has been diagnosed with Bartholinitis (inflammation of Bartholin's glands). In what part of the female urogenital system are the Bartholin's glands located?

- a. The clitoris
- b. The labia minor
- c. The labia major**
- d. The vagina
- e. The uterus

28. A 50-year-old patient had hemorrhage of the brain and was taken to the hospital. The place of hemorrhage was revealed on the lateral hemispheres surfaces during the medical examination. What artery was injured?

- a. The posterior cerebral artery
- b. The anterior cerebral artery
- c. The middle cerebral artery**
- d. The anterior communicating artery
- e. The posterior communicating artery

29. A 30-year-old patient was hospitalized due to bleeding of the facial artery . What place on the face has to be pressed to stop bleeding?

a. The mandible's edge

b. The mandible's branch

c. The molar bone

d. The nose's back

e. The mental process

30. A 19 year-old patient was diagnosed with appendicitis and was hospitalized. The surgical operation on ablating appendix vermiformis is to be performed. What artery must be fixed to stop bleeding during the surgical operation?

a. The colica sinistra

b. The iliac

c. The colica dextra

d. The colica media

e. The ileocolic artery

31. A 45-year-old man fell on the right knee and felt the acute pain in the joint. On examination: severe edema on the anterior surface of the knee joint. Crunching sounds are heard while moving the joint. Which bone is destroyed?

a. Head of the thigh bone

b. Knee-cap

c. Left epicondyle of the thigh

d. Neck of the thigh bone

e. Right epicondyle of the thigh

32. During the operation on the hip joint of a 5-year-old child her ligament was damaged which caused bleeding.What ligament was damaged?

a. Perpendicular of the acetabule

b. Pubofemoral

c. Ischiofemoral

d. The head of the thigh

e. Iliofemoral

33. A 6-year-old child fell on the cutting object and traumatized soft tissues between tibia and fibula . What kind of bone connection was injured?

a. Fontanel

b. Gomphosis

c. Suture

d. Ligament

e. Membrane

34. Usually the intravenous injection is done into median cubital vein because it is slightly movable due to fixation by the soft tissues. What does it fix in the cubital fossa?

a. Brachioradial muscle

b. Anconeus muscle

c. Tendon of the triceps muscle

d. Brachial muscle

e. Aponeurosis of biceps muscle

35. Victim has elbow joint trauma with avulsion of medial epicondyle of humerus. What nerve can be damaged in this trauma?

a. Cardiac cutaneous nerve

b. Medial cutaneous nerve of forearm

c. Radial

d. Musculocutaneous nerve

e. Ulnar

36. A 54-year-old man was admitted to the hospital with complaints of pain in the right subcostal region, vomiting with blood. Objectively: enlarged liver, varicose veins in the stomach and esophagus. Disfunction of what vessel is likely to be?

- a. Aorta abdominalis
- b. Vena cava superior
- c. Vena cava inferior
- d. Vena porta**
- e. Vena hepatica

37. Examination of a 2-year-old child revealed physical developmental lag, the child often has pneumonias. The child was diagnosed with nonclosure of ductus arteriosus. Haemodynamics disorder was caused by the intercommunication of the following vessels:

- a. Aorta and pulmonary veins
- b. Aorta and pulmonary trunk**
- c. Superior cava and aorta
- d. Pulmonary trunk and pulmonary veins
- e. Superior cava and pulmonary trunk

38. A 5-year-old child was admitted to the otorhinolaryngological department with diagnosis - suppurative inflammation of the middle ear. Disease started from the inflammation of the nasopharynx. Through the what canal of the temporal bone did the infection get into the tympanic cavity?

- a. Carotid canal
- b. Tympanic Canaliculus tympanicus
- c. Musculotubal canal**
- d. Canaliculus chordal tympani
- e. Canaliculi caroticotympanici

39. After breathing with poisonous steams there is an increased quantity of slime in respiratory passages of a chemical production worker. What of respiratory tract epithelial cells participate in mucous moistening?

- a. Endocrine cells
- b. Fibroblasts
- c. Goblet cells**
- d. Langerhans cells
- e. Intercalated cells

40. A patient suffering from thyrotoxicosis symptoms of vegetoasthenic syndrome was revealed. What of the following would show the histological appearance of a thyroid gland being stimulated by thyroid-stimulating hormone (TSH)?

- a. Decreased numbers of follicular cells
- b. An abundance of colloid in the lumen of the follicle
- c. Decreased numbers of parafollicular capillaries
- d. Columnar-shaped follicular cells**
- e. Increased numbers of parafollicular cells

41. The reason of occurrence of some diseases of an oral cavity is connected with structural peculiarities of its mucous membrane. What morphological attributes characterize these features?

- a. No muscularis mucosa, stratified squamous epithelium**
- b. Simple columnar ciliated epithelium
- c. Transitional epithelium, no muscularis mucosa
- d. Well developed muscularis, no submucosa
- e. Transitional epithelium, no submucosa

42. There is the change of teeth at the 6-8-year-old children: deciduous are replaced by permanent. What embryonic tissues are the sources of formation of permanent teeth tissues?

- a. Entodermal epithelium of a tooth plate and mesenchyme
- b. I, II brachial arches

c. Entodermal epithelium and mesoderm

d. Ectodermal epithelium of a tooth plate and mesenchyme

e. Mesodermal epithelium and mesenchyme

43. Inflammation of the tympanic cavity (purulent otitis media) was complicated by inflammation of the mastoid process sockets. What wall of the tympanic cavity did the pus penetrate into the sockets through?

a. Medial

b. Anterior

c. Posterior

d. Lateral

e. Superior

44. A 19-year-old female suffers from tachycardia in rest condition, weight loss, excessive sweating, exophthalmos and irritability. What hormone would you expect to find elevated in her serum?

a. Insulin

b. Thyroxine

c. Mineralocorticoids

d. Cortisol

e. ACTH

45. A 60-year-old patient was diagnosed with hypothalamic lateral nuclei stroke. What changes in the patient?

a. The rejection of food

b. Depression

c. Unsatisfied hunger

d. Thirst

e. Aggressive behaviour

46. The process of heart transplantation determined the viability of myocardial cells. The determination of what myocardium parameter is the most important?

a. Concentration of oxygen in heart vessels

b. Heart temperature

c. Rest potential of cardiomyocytes

d. Concentration of calcium-ions in myofibrils

e. Concentration of Ca-ions in heart vessels

47. It is necessary to take the cerebrospinal fluid from a patient with suspected inflammation of the meninges. Diagnostic puncture was performed between the arches of the lumbar vertebrae. During the puncture the needle went through the following ligament:

a. Yellow (ligamentum flavum)

b. Anterior longitudinal

c. Intertransverse

d. Posterior longitudinal

e. Ligamentum lumbare

48. Nowadays about 50 minor bases have been found in the t-RNA structure besides the main four nitrogenous bases. Choose the minor nitrogenous base:

a. Adenine

b. Cytosine

c. Uracil

d. Cysteine

e. Dihydrouracil

49. Obstructive jaundice developed in a 60-year-old patient because of malignant tumour of the major papilla of the duodenum. Lumen of what anatomical structure is squeezed with tumour?

a. Hepatopancreatic ampulla

b. Common hepatic duct

- c. Left hepatic duct
- d. Right hepatic duct
- e. Cystic duct

50. The patient with thymoma (thymus gland tumour) has cyanosis, extension of subcutaneous venous net and edema of the soft tissues of face, neck, upper part of the trunk and upper extremities. What venous trunk is pressed with tumour?

- a. Frontal jugular vein
- b. Superior vena cava**
- c. Clavicular vein
- d. External jugular vein
- e. Internal jugular vein

51. A patient operated on complicated appendicitis has the following changes of blood count: erythrocytes - $4,0 \cdot 10^{12}/l$,

- a. Degenerative left shift**
- b. Regenerative left shift
- c. Regeneratively-degenerative
- d. Hyperregenerative
- e. Right shift

52. Patient complains of frequent and difficult urination. Imperfection of what formation can cause it?

- a. Prostate**
- b. Bulb-uretic glands
- c. Sperm bubbles
- d. Testicle adnexa
- e. Testicles

53. Child inspired button. Where is it likely to be?

- a. In the trachea
- b. In the left main bronchus
- c. In the right main bronchus**
- d. In the larynx
- e. In the gullet

54. Vegetative abnormalities in the sleep, heat regulation, all kinds of metabolism, diabetes insipidus are developing in the patient due to growth of the tumour in the III ventricle of brain. Irritation of the nucleus of what part of the brain can cause this symptoms?

- a. Mesencephalic tegmentum
- b. Cerebral peduncles (crura cerebri)
- c. Hypothalamus**
- d. Pons cerebelli
- e. Medulla

55. A patient with infectious mononucleosis had been taking glucocorticoids for two weeks. He was brought into remission, but he fell ill with acute attack of chronic tonsillitis. What action of glucocorticoids caused this complication?

- a. Anti-inflammatory
- b. Antiallergic
- c. Antitoxic
- d. Immunosuppressive**
- e. Antishock

56. A 45-year-old man with domestic upper arm injury came to the trauma unit. The objective data are: there are no extension, adduction or pronation functions of the arm. What muscle damage caused this condition?

- a. Teres major**
- b. Teres minor

- c. Supraspinous
- d. Subspinous
- e. Subscapular

57. A man with internal abdominal right side injury and suspicion of liver rupture was admitted to the traumatological department. In what peritoneal structure will blood accumulate?

- a. Fossa ischio-analis
- b. Recessus duodenalis inferior
- c. Bursa omentalis
- d. Recessus intersigmoideus
- e. Excavatio rectovesicalis**

58. A histological specimen presents parenchymal organ, which has cortex and medulla. Cortex consists of epitheliocytes bars with blood capillaries between them; the bars form three zones. Medulla consists of chromaffinocytes and venous sinusoids. Which organ has these morphological features?

- a. Kidney
- b. Thymus
- c. Thyroid
- d. Adrenal gland**
- e. Lymph node

59. After trauma a 44-year-old patient had a rupture of left palm muscle tendons and of the surface of blood vessels. After operation and removal of the most part of the necrotically changed muscle tissue the bloodstream was normalized. What vessels have helped with restoration of bloodstream?

- a. Arcus palmaris profundus**
- b. Aa. digitales palmares communes
- c. Aa. perforantes
- d. Aa. metacarpeae palmares
- e. Arcus palmaris superficialis

60. A 45-year-old man applied to the trauma unit because of domestic shoulder trauma. Objectively: flexibility, reduction and pronation functions of the shoulder are absent. What muscle was injured?

- a. Subscapular muscle
- b. Infraspinous muscle
- c. Supraspinous muscle
- d. Teres major muscle**
- e. Teres minor muscle

61. Ovarian tumour was diagnosed in the woman. Surgery was indicated. What ligament should be cut by the surgeon to disconnect the ovary and the uterus?

- a. The ovarian ligament**
- b. Lateral umbilical ligament
- c. Round ligament of uterus
- d. Suspensory ligament of ovary
- e. Broad ligament of uterus

62. An old woman was hospitalized with acute pain, edema in the right hip joint; the movements in the joint are limited. Which bone or part of it was broken?

- a. Condyle of the thigh
- b. The body of the thigh bone
- c. The neck of the thigh**
- d. Pubic bone
- e. Ischial bone

63. A 53-year-old female patient was diagnosed with liver rupture resulting from a blunt abdominal injury. The escaped blood will be assembled in the following anatomic formation:

- a. Right mesenteric sinus

b. Vesicouterine pouch

c. Rectouterine pouch

d. Omental bursa

e. Left mesenteric sinus

64. A patient complains about edemata of legs, skin cyanosis, small ulcers on one side of the lateral condyle. Examination revealed a swelling, enlarged veins, formation of nodes. The pathological process has started in the following vein:

a. V. iliaca externa

b. V. saphena parva

c. V. femoralis

d. V. saphena magna

e. V. profunda femoris

65. A 70 year old female patient was diagnosed with fracture of left femoral neck accompanied by disruption of ligament of head of femur. The branch of the following artery is damaged:

a. External iliac

b. Femoral

c. Obturator

d. Inferior gluteal

e. Internal pudendal

66. A woman underwent an operation on account of extrauterine (tubal) pregnancy. In course of the operation the surgeon should ligate the branches of the following arteries:

a. Uterine and ovarian

b. Inferior cystic and ovarian

c. Uterine and inferior cystic

d. Uterine and superior cystic

e. Superior cystic and ovarian

67. A 6 month old baby ill with bronchitis was taken for an X-ray of chest. Apart of changes associated with bronchi the X-ray film showed a shadow of thymus gland. What might have caused such changes?

a. It is caused by thymus inflammation

b. It is caused by neoplastic process

c. Its the effect of bronchitis

d. It is caused by abnormal position

e. The above-mentioned condition is a normal variant for this age

68. A 7-year-old child cant abduct the shoulder, raise it to the horizontal level. He can raise the hand to the face only with dorsal side with abduction of the shoulder (with help of supraspinous muscle) - "bugler" arm. Active function of what muscle is absent?

a. Infraspinous

b. Teres minor

c. Teres major

d. Deltoid

e. Pectoral major

69. A 7-year-old girl has signs of anemia. Laboratory examination revealed pyruvate kinase deficiency in erythrocytes. What process disturbance plays the main role in anemia development?

a. Oxidative phosphorylation

b. Peroxide decomposition

c. Aminoacids desamination

d. Anaerobic glycolysis

e. Tissue respiration

70. A patient complained about being unable to adduct and abduct fingers in the metacarpophalangeal articulations towards and away from the 3rd finger. Which muscles function is

impaired?

- a. Lumbrical muscles
- b. Long flexors of fingers
- c. Extensors
- d. Interosseous muscles**
- e. Breviflexors of fingers

71. A 45-year-old patient was admitted to the surgical department with complaints of abrupt sharp pain in the epigastric region. After examination it was diagnosed: perforated ulcer of the posterior wall of the stomach. Where did content of the stomach flow out while perforation?

- a. To the left mesenteric sinus
- b. To the right mesenteric sinus
- c. To the liver bursa
- d. To the proventriculus sack
- e. To the omental bursa**

72. A 25-year-old patient complained of the decreased vision. Accommodation disorders, dilated pupil, not reacting on the light were revealed on examination. Function of what muscles is disturbed?

- a. Lateral rectus muscle, pupil narrowing
- b. Pupil narrowing and dilating muscle
- c. Pupil dilating muscle, ciliary
- d. Inferior oblique muscle, ciliary
- e. Pupil narrowing muscle, ciliary**

73. Microspecimen of spinal cord contains a nucleus that should be analyzed. Its neurons form motor endings in the skeletal muscles. What nucleus of spinal cord is meant?

- a. Proper nucleus of the posterior horn
- b. Proper nucleus of gray substance
- c. Thoracic nucleus
- d. Intermediate lateral nucleus
- e. Proper nucleus of the anterior horn**

74. A man with cut wound of his right foot sole was admitted to the hospital ward. The patient has limited elevation of the lateral foot edge. In course of wound management the injury of a muscle tendon was revealed. What muscle is injured?

- a. Triceps muscle of crus
- b. Short peroneal
- c. Anterior tibial
- d. Long extensor muscle of toes
- e. Long peroneal**

75. A 35 year old man with a trauma of his left hand was admitted to the traumatology department. Objectively: cut wound of palmar surface of left hand; middle phalanxes of II

- a. Dorsal interosseous muscles
- b. Superficial finger flexor**
- c. Lumbrical muscles
- d. Profound finger flexor
- e. Palmar interosseous muscles

76. A 38-year-old patient came to a traumatology centre and complained about an injury of his right hand. Objectively: the patient has a cut wound in the region of the thenar eminence on the right hand; distal phalanx of the I finger cannot be flexed. What muscle was injured?

- a. Short abductor muscle of thumb
- b. Short flexor muscle of thumb
- c. Long flexor muscle of thumb**
- d. Opposer muscle of thumb
- e. Abductor muscle of thumb

77. A patient with neuritis of femoral nerve has disturbed flexion of thigh as well as disturbed crus extension in the knee joint. What muscles function is disturbed?

a. Quadriceps muscle of thigh

b. Triceps muscle of thigh

c. Semimembranous muscle

d. Semitendinous muscle

e. Biceps muscle of thigh

78. In the specimen of one of the parts of respiratory system a tubular organ was found. It has low epithelium, well developed muscular tunic, glands and cartilage are absent. Name this organ:

a. Major bronchs

b. Median bronchs

c. Trachea

d. Larynx

e. Minor bronchs

79. Where should the catheter for evacuation of the lymph from the thoracic lymph duct be inserted?

a. To the left inguinal vein

b. To the left venous corner

c. To the superior vena cava

d. To the right venous corner

e. To the inferior vena cava

80. A patient has difficulties with hand movement. Examination revealed inflammation of common synovial sheath of flexor muscles. It is known from the patients anamnesis that he got a stab wound of finger a week ago. Which finger was most probably damaged?

a. Pollex

b. Index

c. Digitus anularis

d. Digitus minimus

e. Digitus medius

81. An injured man has bleeding from branches of carotid artery. For a temporary arrest of bleeding it is necessary to press the carotid artery to the tubercle of a cervical vertebra. Which vertebra is it?

a. IV

b. V

c. VI

d. III

e. II

82. As a result of an accident a patient has intense painfulness and edema of the anterior crus surface; dorsal flexion of foot is hindered. Function of which crus muscle is most likely to be disturbed?

a. M.flexor digitorum longus

b. M.peroneus longus

c. M.peroneus brevis

d. M.tibialis anterior

e. M.flexor hallucis longus

83. A 40-year-old patient complains of intensive heartbeats, sweating, nausea, visual impairment, arm tremor, hypertension. From his anamnesis: 2 years ago he was diagnosed with pheochromocytoma. Hyperproduction of what hormones causes the given pathology?

a. Aldosterone

b. ACTH

c. Thyroidal hormones

d. Catecholamines

e. Glucocorticoids

84. A patient who suffers from cancer of back of tongue has an intense bleeding as a result of affection of dorsal lingual artery by the tumour. What vessel should be ligated to stop bleeding?

a. Ascending pharyngeal artery

b. Lingual artery

c. Deep lingual artery

d. Dorsal lingual artery

e. Facial artery

85. A 58-year-old patient with acute cardiac insufficiency has decreased volume of daily urine - oliguria. What is the mechanism of this phenomenon?

a. Drop of oncotic blood pressure

b. Decreased number of functioning glomerules

c. Decreased glomerular filtration

d. Rise of hydrostatic blood pressure in capillars

e. Reduced permeability of renal filter

86. An 18-year-old man was delivered to the hospital after a road accident. Examination at the traumatological department revealed multiple injuries of soft tissues of face in the region of the medial eye angle. The injuries caused massive haemorrhage. What arterial anastomosis might have been damaged in this region?

a. a. carotis externa et a. subclavia

b. a. subclavia et a. ophthalmica

c. a. carotis interna et a. ophthalmica

d. a. carotis externa et a. carotis interna

e. a. carotis interna et a. subclavia

87. After a 2 y.o. child has had flu, there appeared complaints about ear ache. A doctor revealed hearing impairment and inflammation of the middle ear. How did the infection penetrate into the middle ear?

a. Through the auditory tube

b. Through canalis caroticus

c. Through canalis nasolacrimalis

d. Through atrium mastoideum

e. Through foramen jugularis

88. Cerebral trauma caused increase of ammonia formation. What aminoacid takes part in removal of ammonia from cerebral tissue?

a. Glutamic

b. Valine

c. Lisine

d. Tryptophan

e. Tyrosine

89. A 40-year-old woman was admitted to the infectious diseases department with high body temperature. Objectively: marked meningeal symptoms. A spinal cord puncture was made. What anatomic formation was punctured?

a. Spatium subarachnoideum

b. Spatium epidurale

c. Cisterna cerebellomedullaris posterior

d. Cavum trigeminale

e. Spatium subdurale

90. After resection of the middle third of femoral artery obliterated by a thromb the lower extremity is supplied with blood due to the surgical bypass. Name an artery that plays the main role in reestablishment of blood flow:

a. Deep femoral artery

b. Descending genicular artery

c. Deep external pudendal artery

- d. Superficial epigastric artery
- e. Superficial circumflex artery of hip bone

91. A patient's knee joint doesn't extend, there is no knee-jerk reflex, skin sensitivity of the anterior femoral surface is disturbed. What nerve structures are damaged?

- a. Superior gluteal nerve
- b. Obturator nerve
- c. Inferior gluteal nerve
- d. Femoral nerve**
- e. Big fibular nerve

92. The electronic microphoto of kidney fragment has exposed afferent glomerular arteriole, which has giant cells under its endothelium, containing secretory granules. Name the type of these cells:

- a. Interstitial
- b. Juxtaglomerular**
- c. Smoothmuscular
- d. Mesangial
- e. Juxtavascular

93. A 50 y.o. patient was admitted to the hospital with complaints about pain behind his breastbone, asphyxia during physical activity. Angiography revealed pathological changes in the posterior interventricular branch of the right coronary artery. What heart parts are affected?

- a. Posterior wall of the right and left ventricles**
- b. Anterior wall of the right and left ventricles
- c. Right atrioventricular valve
- d. Right atrium
- e. Left atrium

94. A patient was admitted to the surgical department with suspected inflammation of Meckel's diverticulum. What part of bowels should be examined in order to discover the diverticulum in course of an operation?

- a. Jejunum
- b. Duodenum
- c. Ileum**
- d. Caecum
- e. Colon ascendens

95. Examination of a newborn boy's genitals revealed a cleft of urethra that opens on the inferior surface of his penis. What developmental anomaly is meant?

- a. Hypospadia**
- b. Epispadia
- c. Cryptorchism
- d. Monorchism
- e. Hermaphroditism

96. A patient complains about impaired evacuatory function of stomach (long-term retention of food in stomach). Examination revealed a tumour of initial part of duodenum. Specify localization of the tumour:

- a. Pars descendens
- b. Pars inferior
- c. Pars superior**
- d. Pars ascendens
- e. Flexura duodeni inferior

97. A man after 1.5 litre blood loss has suddenly reduced diuresis. The increased secretion of what hormone caused such diuresis alteration?

- a. Vasopressin**
- b. Natriuretic

- c. Parathormone
- d. Cortisol
- e. Corticotropin

98. A young man consulted a doctor about disturbed urination. Examination of his external genitals revealed that urethra is split on top and urine runs out of this opening. What anomaly of external genitals development is the case?

- a. Hermaphroditism
- b. Phimosis
- c. Epispadia**
- d. Paraphimosis
- e. Hypospadia

99. A 35 year old patient applied to a doctor with complaints about having intense rhinitis and loss of sense of smell for a week. Objectively: nasal cavity contains a lot of mucus that covers mucous membrane and blocks olfactory receptors. In what part of nasal cavity are these receptors situated?

- a. Median nasal turbinate
- b. Common nasal meatus
- c. Vestibule of nose
- d. Superior nasal turbinate**
- e. Inferior nasal turbinate

100. Inflammatory process of modified subserous layer around cervix of the uterus caused an intensive pain syndrome. In what region of genitals does the pathological process take place?

- a. Mesometrium
- b. Endometrium
- c. Perimetrium
- d. Parametrium**
- e. Myometrium

101. In course of an operation surgeon removed a part of a lung that was ventilated by a tertiary bronchus accompanied by branches of pulmonary artery and other vessels. What part of a lung was removed?

- a. Pulmonary lobule
- b. Bronchopulmonary segment**
- c. Inferior lobe
- d. Middle lobe
- e. Superior lobe

102. While examining the oral cavity a stomatologist revealed inflammation of papillae on the border of the median and posterior third of the back of tongue. What papillae are inflamed?

- a. Papillae filiformes
- b. Papillae conicae
- c. Papillae fungiformes
- d. Papillae foliatae
- e. Papillae vallatae**

103. Examination of a patient revealed an abscess of pterygopalatine fossa. Where can the infection spread to unless the disease is managed in time?

- a. To the subgaleal temporal space
- b. To the tympanic cavity
- c. To the interpterygoid space
- d. To the frontal sinus
- e. To the orbit**

104. During complicated labour the symphysis pubis ruptured. What organ can be damaged mostly?

- a. Uterine tubes
- b. Uterus

- c. Rectum
- d. Ovaria

e. Urinary bladder

105. A patient with cholelithiasis fell ill with mechanic jaundice. Examination revealed that the stone was in the common bile duct. What bile-excreting ducts make up the obturated duct?

- a. Ductus hepaticus sinister et ductus cysticus
- b. Ductus hepaticus communis et ductus choledochus
- c. Ductus hepaticus dexter et sinister
- d. Ductus hepaticus dexter et ductus cysticus

e. Ductus hepaticus communis et ductus cysticus

106. Neurological examination of a 65 y.o. patient revealed a haemorrhage within the superior temporal gyrus. In the blood supply area of which artery is it?

- a. Anterior communicating artery
- b. Basilar artery
- c. Anterior cerebral artery
- d. Posterior cerebral artery

e. Middle cerebral artery

107. A 70 y.o. man has cut an abscess off in the area of mammiform process during shaving. Two days later he was admitted to the hospital with inflammation of arachnoid membranes. How did the infection penetrate into the cavity of skull?

a. V.v.auriculares

b. V.emissaria

- c. V.v.tympanicae
- d. V.v.labyrinthe
- e. V.facialis

108. The cerebrospinal fluid is being examined for the purpose of differential meningitis diagnostics. At what site is the lumbar puncture safe?

a. L V-S I

b. L III-L IV

- c. L I-L II
- d. L II-L III
- e. Th XII-L I

109. An isolated cell of human heart automatically generates excitation impulses with frequency 60 times pro minute. What structure does this cell belong to?

a. Sinoatrial node

- b. Ventricle
- c. His bundle
- d. Atrioventricular node
- e. Atrium

110. While preparing a patient to the operation the heart chambers pressure was measured. In one of them the pressure changed during one heart cycle from 0 to 120 mm Hg. What chamber of heart was it?

- a. Right ventricle
- b. Left atrium
- c. -

d. Left ventricle

e. Right atrium

111. Part of alveoles of a preterm infant didn't spread because of enhanced elastic recoil of lungs. How can this recoil be reduced?

a. By surfactant introduction

b. By artificial pulmonary ventilation

- c. By glucose introduction
- d. By fluid suction from the respiratory tracts
- e. By pure oxygen inhalation

112. Preventive examination of a patient revealed an enlarged lymph node of metastatic origin on the medial wall of the left axillary crease. Specify the most likely localization of the primary tumour:

- a. Thyroid gland
- b. Mammary gland**
- c. Lung
- d. Submandibular salivary gland
- e. Stomach

113. A man suffering from osteochondrosis got acute pain in the abdominal muscles (lateral and anterior). During objective examination a physician diagnosed increased pain sensitivity of skin in the hypogastric region. This pain might be caused by affection of the following nerve:

- a. Genitofemoral
- b. Iliohypogastric**
- c. Obturator
- d. Sciatic
- e. Femoral

114. A woman suffering from osteochondrosis felt acute pain in her humeral articulation that became stronger when she abducted her shoulder. These symptoms might be caused by damage of the following nerve:

- a. Subscapular nerve
- b. Subclavicular nerve
- c. Thoracodorsal nerve
- d. Axillary nerve**
- e. Dorsal scapular nerve

115. Pyeloureterography X-ray photo showed a renal pelvis with minor calyces only (major calyces were absent). What form of urinary tracts of a kidney was revealed?

- a. -
- b. Embryonal**
- c. Mature
- d. Fetal
- e. Ampullar

116. A patient has a deep cut wound on the posterior surface of his shoulder in its middle third. What muscle might be injured?

- a. Triceps muscle of arm**
- b. Anconeus muscle
- c. Coracobrachial muscle
- d. Brachial muscle
- e. Biceps muscle of arm

117. A patient has pain, edema and reddening of his skin in the anterosuperior area of his thigh and his foot's thumb. What lymph nodes of his lower extremity responded to the inflammatory process?

- a. Internal longitudinal
- b. Deep inguinal
- c. Superficial inguinal**
- d. Superficial longitudinal
- e. General longitudinal

118. A patient got a craniocerebral trauma that resulted in right-side convergent strabismus. Damage of which craniocerebral nerve caused such consequences?

- a. n.abducens**
- b. n.trigeminus

- c. n. aculomotorius
- d. n. trochlearis
- e. n. facialis

119. In case of a penetrating wound of the anterior abdominal wall the wound tract went above the lesser curvature of stomach. What peritoneum formation is most likely to be injured?

- a. Ligamentum hepatorenale
- b. Ligamentum triangulare sinistrum
- c. Ligamentum gastrocolicum
- d. Ligamentum hepatoduododenale
- e. Ligamentum hepatogastricum**

120. After a trauma a patient lost ability of elbow extension. This might have been caused by dysfunction of the following main muscle:

- a. m. teres major
- b. m. subscapularis
- c. m. triceps brachii**
- d. m. infraspinatus
- e. m. levator scapulae

121. After a craniocerebral trauma a patient lost the ability to execute learned purposeful movements (apraxia). The injury is most likely localized in the following region of the cerebral cortex:

- a. Gyrus paracentralis
- b. Gyrus angularis
- c. Gyrus supramarginalis**
- d. Gyrus lingualis
- e. Gyrus parahippocampalis

122. A patient got an injury of spinal marrow in a road accident that caused loss of tactile sensation, posture sense, vibration sense. What conduction tracts are damaged?

- a. Fascicle of Goll and cuneate fascicle**
- b. Rubrospinal tract
- c. Tectospinal tract
- d. Reticulospinal tract
- e. Anterior spinocerebellar tract

123. Examination of a patient revealed hypertrophy and inflammation of lymphoid tissue, edema of mucous membrane between palatine arches (acute tonsillitis). What tonsil is normally situated in this area?

- a. Tonsilla pharyngealis
- b. Tonsilla lingualis
- c. -
- d. Tonsilla palatina**
- e. Tonsilla tubaria

124. While performing an operation in the area of axillary crease a surgeon has to define an arterial vessel surrounded by fascicles of brachial plexus. What artery is it?

- a. A. transversa colli
- b. A. vertebralis
- c. A. axillaris**
- d. A. profunda brachii
- e. A. subscapularis

125. Examination of a patient with impaired blood coagulation revealed thrombosis of a branch of inferior mesenteric artery. What bowel segment is damaged?

- a. Ileum
- b. Colon transversum
- c. Colon ascendens

d. Colon sigmoideum

e. Caecum

126. A patient was admitted to the surgical department with inguinal hernia. During the operation the surgeon performs plastic surgery on posterior wall of inguinal canal. What structure forms this wall?

a. Inguinal ligament

b. Aponeurosis of abdominal external oblique muscle

c. Transverse fascia

d. Loose inferior edge of transverse abdominal muscle

e. Peritoneum

127. A man with an injury of the dorsal area of his neck was admitted to the resuscitation department. What muscle occupies this area?

a. M.rhomboideus minor

b. M.scalenus anterior

c. M.sternocleidomastoideus

d. M.latissimus dorsi

e. M.trapezius

128. A patient complains of dizziness and hearing loss. What nerve is damaged?

a. Vagus

b. Trochlear

c. Trigemini

d. Sublingual

e. Vestibulocochlear

129. While palpating mammary gland of a patient a doctor revealed an induration in form of a node in the inferior medial quadrant. Metastases may extend to the following lymph nodes:

a. Parasternal

b. Profound lateral cervical

c. Superior diaphragmal

d. Bronchopulmonary

e. Posterior mediastinal

130. A patient got a trauma that caused dysfunction of motor centres regulating activity of head muscles. In what parts of cerebral cortex is the respective centre normally localized?

a. Superior parietal lobule

b. Angular gyrus

c. Superior part of precentral gyrus

d. Supramarginal gyrus

e. Inferior part of precentral gyrus

131. A patient was diagnosed with paralysis of facial and masticatory muscles. The haematoma is inside the genu of internal capsule. What conduction tract is damaged?

a. Tr. cortico-spinalis

b. Tr. cortico-fronto-pontinus

c. Tr. cortico-temporo-parieto-occipito-pontinus

d. Tr. cortico-nuclearis

e. Tr. cortico-thalamicus

132. A patient has lost skin sensitivity in the region of the medial surface of his shoulder. This is the result of dysfunction of the following nerve:

a. Axillary nerve

b. Medial brachial cutaneous nerve

c. Radial nerve

d. Medial antebrachial cutaneous nerve

e. Ulnar nerve

133. A foreign body (a button) closed space of the right superior lobar bronchus. What segments of

the right lung won't be supplied with air?

- a. Superior and inferior lingular
- b. Apical and median basal
- c. Medial and lateral
- d. Apical, posterior, anterior**
- e. Apical and posterior basal

134. A patient was diagnosed with Bartholin'sitis (inflammation of greater vulvovaginal glands). In which organ of urogenital system are these glands localized?

- a. Vagina
- b. Uterus
- c. Small lips of pudendum
- d. Clitoris
- e. Large lips of pudendum**

135. While performing an inguinal canal operation on account of hernia a surgeon damaged the canal's contents. What exactly was damaged?

- a. Funiculus spermaticus**
- b. Lig. teres uteri
- c. -
- d. Lig. inguinal
- e. Urachus

136. Ultrasonic examination of a patient revealed aneurysm in the area of aortic arch that caused alteration of vocal function of larynx. What nerve was constricted?

- a. Sublingual
- b. Recurrent laryngeal**
- c. Superior laryngeal
- d. Diaphragmatic
- e. Mandibular

137. Surgical approach to the thyroid gland from the transverse (collar) approach involves opening of interaponeurotic suprasternal space. What anatomic structure localized in this space is dangerous to be damaged?

- a. Inferior thyroid artery
- b. Superior thyroid artery
- c. External jugular vein
- d. Subclavicular vein
- e. Jugular venous arch**

138. In course of a small pelvis operation it became necessary to ligate an ovarian artery. What formation may be accidentally ligated together with it?

- a. Urethra
- b. Ureter**
- c. Round ligament of uterus
- d. Uterine tube
- e. Internal iliac vein

139. An injured person was delivered to the hospital with a penetrating wound in the left lateral region of abdomen. What part of the large intestine is most likely damaged?

- a. Caecum
- b. Rectum
- c. Colon ascendens
- d. Colon transverses
- e. Colon descendens**

140. After a road accident a driver was delivered to the hospital with an injury of the medial epicondyle of humerus. What nerve might be damaged in this case?

- a. n. radialis
- b. n. muscolocutaneus
- c. n. medianus
- d. n. ulnaris**
- e. n. axillaris

141. A patient with a knife wound in the left lumbar part was delivered to the emergency hospital. In course of operation a surgeon found that internal organs were not damaged but the knife injured one of muscles of renal pelvis. What muscle is it?

- a. Abdominal external oblique muscle
- b. Greater psoas muscle**
- c. Erector muscle of spine
- d. Iliac muscle
- e. Abdominal internal oblique muscle

142. A 25 year old patient was examined by a medical board. Examination revealed pathology of chest. Transverse dimensions were too small and the sternum was strongly protruding. What chest type is it?

- a. Keel chest**
- b. Flat chest
- c. Barrel chest
- d. Cylindrical chest
- e. Funnel chest

143. A man with a stab wound in the area of quadrilateral foramen applied to a doctor. Examination revealed that the patient was unable to draw his arm aside from his body. What nerve is most probably damaged?

- a. N. medianus
- b. N. ulnaris
- c. N. subclavius
- d. N. axillaris**
- e. N. radialis

144. A 10-year-old child complains of weakness, nausea, irritability. Helminthes of white color and 5-10 mm long were found on the underwear. On microscopy of the scrape from the perianal folds achromic ova of unsymmetrical form were revealed. Indicate what helminth is parasiting on the child?

- a. Trichuris
- b. Ancylostoma duodenalis
- c. Enterobius vermicularis**
- d. Trichina
- e. Ascaris lumbricoides

145. A patient has been brought to the hospital with the complaints of headache, pain in left hypochondrium. He has been ill for 1,5 weeks. The sudden illness began with the increase of body temperature up to 39,9°C. In 3 hours the temperature decreased and hydropoiesis began. The attacks repeat rhythmically in 48 hours. The patient had visited one an African country. The doctors have suspected malaria. What method of laboratory diagnostics is necessary to use?

- a. Urine examination
- b. Blood examination**
- c. Stool examination
- d. Immunological tests
- e. Examination of vaginal and urethral discharge

146. A patient in three weeks after acute myocardial infarction has pain in the heart and joints and pneumonia. What is the main mechanism of development of post-infarction Dressler's syndrome?

- a. Autoimmune inflammation**
- b. Resorption of enzymes from necrotized area of myocardium

- c. Vessels thrombosis
- d. Secondary infection
- e. Ischemia of myocardium

147. During the fetal period of the development in the vascular system of the fetus large arterial (Botallus) duct is functioning which converts into lig. arteriosum after birth. What anatomical formations does this duct connect between each other?

- a. Pulmonary trunk and aorta**
- b. Aorta and inferior vena cava
- c. Aorta and superior vena cava
- d. Pulmonary trunk and superior vena cava
- e. Right and left auricle

148. Young man felt sharp pain in the back during active tightening on the horizontal bar. Objectively: pain while moving of upper extremity, limited pronation and adduction functions. Sprain of what muscle is presented?

- a. M. levator scapulae
- b. M. trapezius
- c. M. subscapularis
- d. M. latissimus dorsi**
- e. M. rhomboideus major

149. Children often have heavy nasal breathing resulting from excessive development of lymphoid tissue of pharyngeal mucous membrane. What tonsils growth may cause this effect?

- a. All above mentioned tonsils
- b. Tonsilla pharyngea**
- c. Tonsilla lingualis
- d. Tonsilla palatina
- e. Tonsilla tubaria

150. In course of laparotomy a surgeon revealed gangrenous lesion of descending colon. It was caused by thrombosis of the following artery:

- a. Sinister colic**
- b. Dexter colic
- c. Superior mesenteric artery
- d. Ileocolic
- e. Median colic

151. Three separate bones connected with cartilage in the area of pelvis cavity are noticed on the X-ray of the pelvis. What are these bones?

- a. Sacral, pubic, coccyx
- b. Iliac, pubic, sciatic**
- c. Sciatic, femoral, sacral
- d. Pubic, sciatic, femoral
- e. Iliac, sacral, coccyx

152. A 60-year-old patient has reduced perception of high-frequency sounds. What structures disorder of auditory analyzer caused these changes?

- a. Main membrane of cochlea near the oval window**
- b. Eustachian tube
- c. Tympanic membrane
- d. Muscles of middle ear
- e. Main membrane of cochlea near helicotrema

153. The alveolar ventilation of the patient is 5 L/min, the breath frequency is 10 per/min, and the tidal volume is 700 ml. What is the patients dead space ventilation?

- a. 0,7 L/min
- b. 4,3 L/min

c. -

d. 2,0 L/min

e. 1,0 L/min

154. During investigation of patient, it was found formation in the white substance of cerebral hemispheres with location in the knee and frontal part of posterior crus of internal capsule. Fibres of what conductive tract of the brain will be disrupted?

a. Tr. parietooccipitopontinus

b. Tr. pyramidalis

c. Tr. thalamocorticalis

d. Tr. frontothalamicus

e. Tr. frontopontinus

155. Only one factor can influence the charge of amino acid radicals in the active centre of enzyme. Name this factor:

a. pH medium

b. Temperature

c. The surplus of a product

d. The presence of a competitive inhibitor

e. Pressure

156. Succinate dehydrogenase catalyses the dehydrogenation of succinate. Malonic acid $\text{HOOC-CH}_2\text{-COOH}$ is used to interrupt the action of this enzyme. Choose the inhibition type:

a. Dephosphorylation

b. Competitive

c. Non-competitive

d. Allosteric

e. Limited proteolysis

157. A patient with a stab wound of the anterior stomach wall is in surgical care. What formation of abdominal cavity did the stomach contents get into?

a. Left mesenteric sinus

b. Right mesenteric sinus

c. Omental bursa

d. Hepatic bursa

e. Antegastric bursa

158. A patient had been taking glucocorticoids for a long time. When the preparation was withdrawn he developed the symptoms of disease aggravation, decreased blood pressure and weakness. What is the reason of this condition?

a. Appearance of adrenal insufficiency

b. Sensibilization

c. Cumulation

d. Habituation

e. Hyperproduction of ACTH

159. A patient has tissue ischemia below the knee joint accompanied with intermittent claudication. What artery occlusion should be suspected?

a. Proximal part of femoral artery

b. Popliteal artery

c. Posterior tibial artery

d. Peroneal artery

e. Anterior tibial artery

160. The patient has come to the hospital from the smelting workshop in the condition of hyperthermia. What is the direct cause of loss of consciousness at the heat stroke?

a. Increased water loss through sweating

b. Arterial pressure drop

c. Decreased brain blood supply

d. Decrease of heart output

e. Dilatation of peripheral vessels

161. A patient's blood was analyzed and the decreased erythrocyte's sedimentation rate (ESR) was discovered. What disease from the listed below is accompanied with decreased ESR?

a. Vitamin B deficiency

b. Myocardial infarction

c. Hepatitis

d. Splenomegaly

e. Polycythemia

162. A 55-year-old patient was hospitalized in result of the trauma of the medial group of femoral muscles. What kind of movements is the patient unable to do?

a. Supination of femur

b. Adduction of femur

c. Flexion of femur

d. Abduction of femur

e. Extension of femur

163. A mother of a newborn complains of her baby's constant belching with undigested milk. Which developmental anomaly is it an evidence of?

a. Faux lupinum

b. Labium leporium

c. Esophageal atresia

d. Anal atresia

e. Esophageal fistula

164. A 32-year-old patient has been diagnosed with Bartholinitis (inflammation of Bartholin's glands). In what part of the female urogenital system are the Bartholin's glands located?

a. The labia major

b. The clitoris

c. The uterus

d. The vagina

e. The labia minor

165. A 30-year-old patient was hospitalized due to bleeding of the facial artery. What place on the face has to be pressed to stop bleeding?

a. The mental process

b. The nose's back

c. The molar bone

d. The mandible's edge

e. The mandible's branch

166. A 45-year-old man fell on the right knee and felt the acute pain in the joint. On examination: severe edema on the anterior surface of the knee joint. Crunching sounds are heard while moving the joint. Which bone is destroyed?

a. Neck of the thigh bone

b. Right epicondyle of the thigh

c. Head of the thigh bone

d. Knee-cap

e. Left epicondyle of the thigh

167. A 6-year-old child fell on the cutting object and traumatized soft tissues between tibia and fibula. What kind of bone connection was injured?

a. Suture

b. Fontanel

c. Gomphosis

d. Membrane

e. Ligament

168. Victim has elbow joint trauma with avulsion of medial epicondyle of humerus. What nerve can be damaged in this trauma?

a. Medial cutaneous nerve of forearm

b. Ulnar

c. Musculocutaneous nerve

d. Radial

e. Cardiac cutaneous nerve

169. A 54-year-old man was admitted to the hospital with complaints of pain in the right subcostal region, vomiting with blood. Objectively: enlarged liver, varicose veins in the stomach and esophagus. Disfunction of what vessel is likely to be?

a. Vena cava inferior

b. Vena porta

c. Vena hepatica

d. Aorta abdominalis

e. Vena cava superior

170. Examination of a 2-year-old child revealed physical developmental lag, the child often has pneumonias. The child was diagnosed with nonclosure of ductus arteriosus. Haemodynamics disorder was caused by the intercommunication of the following vessels:

a. Pulmonary trunk and pulmonary veins

b. Superior cava and pulmonary trunk

c. Aorta and pulmonary veins

d. Aorta and pulmonary trunk

e. Superior cava and aorta

171. Inflammation of the tympanic cavity (purulent otitis media) was complicated by inflammation of mammillary process sockets. What wall of tympanic cavity did the pus penetrate into the sockets through?

a. Lateral

b. Superior

c. Anterior

d. Medial

e. Posterior

172. A 19-year-old female suffers from tachycardia in rest condition, weight loss, excessive sweating, exophthalmos and irritability. What hormone would you expect to find elevated in her serum?

a. Cortisol

b. ACTH

c. Insulin

d. Thyroxine

e. Mineralocorticoids

173. A 60-year-old patient was diagnosed with hypothalamic lateral nuclei stroke. What changes in patient's behavior may be expected?

a. Unsatisfied hunger

b. The rejection of food

c. Depression

d. Aggressive behaviour

e. Thirst

174. The process of heart transplantation determined the viability of myocardial cells. The determination of what myocardium parameter is the most important?

a. Rest potential of cardiomyocytes

b. Concentration of oxygen in heart vessels

- c. Concentration of Ca-ions in heart vessels
- d. Concentration of calcium-ions in myofibrils
- e. Heart temperature

175. It is necessary to take the cerebrospinal fluid from a patient with suspected inflammation of brain tunics. Diagnostic puncture was performed between the arches of the lumbar vertebrae. During the puncture the needle went through the following ligament:

- a. Anterior longitudinal
- b. Iliolumbar

c. Yellow (flaval)

- d. Posterior longitudinal
- e. Intertransverse

176. Nowadays about 50 minor bases have been found in the t-RNA structure besides the main four nitrogenous bases. Choose the minor nitrogenous base:

a. Dihydrouracil

- b. Cysteine
- c. Cytosine
- d. Adenine
- e. Uracil

177. Obturative jaundice developed in a 60-year-old patient because of malignant tumour of the big papillary of the duodenum. Lumen of what anatomical structure is squeezed with tumour?

- a. Common hepatic duct
- b. Cystic duct

c. Hepatopancreatic ampulla

- d. Right hepatic duct
- e. Left hepatic duct

178. The patient with thymoma (thymus gland tumour) has cyanosis, extension of subcutaneous venous net and edema of the soft tissues of face, neck, upper part of the trunk and upper extremities. What venous trunk is pressed with tumour?

- a. Clavicular vein
- b. External jugular vein

c. Superior vena cava

- d. Internal jugular vein
- e. Frontal jugular vein

179. A patient operated on complicated appendicitis has the following changes of blood count: erythrocytes - $4,0 \cdot 10^{12}/l$, Hb - 120 g/l, color index - 0,9, leukocytes - $18 \cdot 10^9/l$, basophils - 0, eosinophils - 0, myelocytes - 0, juvenile - 0, stab neutrophils - 20, segmentonuclear neutrophils - 53, lymphocytes - 21, monocytes - 5. How is such nuclear shift of leukocytic formula called?

a. Regeneratively-degenerative

b. Degenerative left shift

- c. Regenerative left shift
- d. Right shift
- e. Hyperregenerative

180. Child inspired button. Where is it likely to be?

a. In the gullet

b. In the right main bronchus

- c. In the trachea
- d. In the left main bronchus
- e. In the larynx

181. A 45-year-old man with domestic upper limb injury came to the trauma unit. The objective data are: there are no extension, adduction or pronation functions of the arm. What muscle damage caused this condition?

a. Teres major

b. Teres minor

c. Supraspinous

d. Subspinous

e. Subscapular

182. A man with internal abdominal right side injury and suspicion of liver rupture was admitted to the traumatological department. In what peritoneal structure will blood accumulate?

a. Bursa omentalis

b. Fossa ischio-analis

c. Recessus duodenalis inferior

d. Excavatio rectovesicalis

e. Recessus intersigmoideus

183. A histological specimen presents parenchymal organ, which has cortex and medulla. Cortex consists of epitheliocytes bars with blood capillaries between them; the bars form three zones. Medulla consists of chromaffinocytes and venous sinusoids. Which organ has these morphological features?

a. Adrenal gland

b. Lymph node

c. Thyroid

d. Thymus

e. Kidney

184. After trauma a 44-year-old patient had a rupture of left palm muscle tendons and of the surface of blood vessels. After operation and removal of the most part of the necrotically changed muscle tissue the bloodstream was normalized. What vessels have helped with restoration of bloodstream?

a. Aa. digitales palmares communes

b. Arcus palmaris superficialis

c. Arcus palmaris profundus

d. Aa. metacarpeae palmares

e. Aa. perforantes

185. A 45-year-old man applied to the trauma unit because of domestic shoulder trauma. Objectively: flexibility, reduction and pronation functions of the shoulder are absent. What muscle was injured?

a. Teres major muscle

b. Teres minor muscle

c. Supraspinous muscle

d. Infraspinous muscle

e. Subscapular muscle

186. Ovarian tumour was diagnosed in the woman. Surgery was indicated. What ligament should be cut by the surgeon to disconnect the ovary and the uterus?

a. Lateral umbilical ligament

b. Broad ligament of uterus

c. The ovarian ligament

d. Suspensory ligament of ovary

e. Round ligament of uterus

187. An old woman was hospitalized with acute pain, edema in the right hip joint; the movements in the joint are limited. Which bone or part of it was broken?

a. The body of the thigh bone

b. Pubic bone

c. Ischial bone

d. The neck of the thigh

e. Condyle of the thigh

188. A 53-year-old female patient was diagnosed with liver rupture resulting from a blunt abdominal

injury. The escaped blood will be assembled in the following anatomic formation:

- a. Left mesenteric sinus
- b. Rectouterine pouch**
- c. Right mesenteric sinus
- d. Vesicouterine pouch
- e. Omental bursa

189. A patient complains about edemata of legs, skin cyanosis, small ulcers on one side of the lateral condyle. Examination revealed a swelling, enlarged veins, formation of nodes. The pathological process has started in the following vein:

- a. V. profunda femoris
- b. V. iliaca externa
- c. V. saphena magna
- d. V. femoralis
- e. V. saphena parva**

190. A woman underwent an operation on account of extrauterine (tubal) pregnancy. In course of the operation the surgeon should ligate the branches of the following arteries:

- a. Uterine and superior cystic
- b. Uterine and inferior cystic
- c. Superior cystic and ovarian
- d. Inferior cystic and ovarian
- e. Uterine and ovarian**

191. A 6 month old baby ill with bronchitis was taken for an X-ray of chest. Apart of changes associated with bronchi the X-ray film showed a shadow of thymus gland. What might have caused such changes?

- a. It is caused by abnormal position
- b. Its the effect of bronchitis
- c. The above-mentioned condition is a normal variant for this age**
- d. It is caused by thymus inflammation
- e. It is caused by neoplastic process

192. A 7-year-old child cant abduct the shoulder, raise it to the horizontal level. He can raise the hand to the face only with dorsal side with abduction of the shoulder (with help of supraspinous muscle) - "bugler" arm. Active function of what muscle is absent?

- a. Pectoral major
- b. Infraspinous
- c. Deltoid**
- d. Teres minor
- e. Teres major

193. A 7-year-old girl has signs of anemia. Laboratory examination revealed pyruvate kinase deficiency in erythrocytes. What process disturbance plays the main role in anemia development?

- a. Anaerobic glycolysis**
- b. Tissue respiration
- c. Aminoacids desamination
- d. Peroxide decomposition
- e. Oxidative phosphorylation

194. A patient complained about being unable to adduct and abduct fingers in the metacarpophalangeal articulations towards and away from the 3rd finger. Which muscles function is impaired?

- a. Breviflexors of fingers
- b. Lumbrical muscles
- c. Interosseous muscles**
- d. Long flexors of fingers
- e. Extensors

195. A 45-year-old patient was admitted to the surgical department with complaints of abrupt sharp pain in the epigastric region. After examination it was diagnosed: perforated ulcer of the posterior wall of the stomach. Where did content of the stomach flow out while perforation?

- a. To the proventriculus sack
- b. To the liver bursa
- c. To the omental bursa**
- d. To the left mesenteric sinus
- e. To the right mesenteric sinus

196. Microspecimen of spinal cord contains a nucleus that should be analyzed. Its neurons form motor endings in the skeletal muscles. What nucleus of spinal cord is meant?

- a. Thoracic nucleus
- b. Proper nucleus of the posterior horn
- c. Proper nucleus of gray substance
- d. Proper nucleus of the anterior horn**
- e. Intermediate lateral nucleus

197. A man with cut wound of his right foot sole was admitted to the hospital ward. The patient has limited elevation of the lateral foot edge. In course of wound management the injury of a muscle tendon was revealed. What muscle is injured?

- a. Long extensor muscle of toes
- b. Anterior tibial
- c. Long peroneal**
- d. Triceps muscle of crus
- e. Short peroneal

198. A 35 year old man with a trauma of his left hand was admitted to the traumatology department. Objectively: cut wound of palmar surface of left hand; middle phalanxes of II-V fingers dont bend. What muscles are damaged?

- a. Dorsal interosseous muscles
- b. Superficial finger flexor**
- c. Lumbrical muscles
- d. Profound finger flexor
- e. Palmar interosseous muscles

199. A 38-year-old patient came to a traumatology centre and complained about an injury of his right hand. Objectively: the patient has a cut wound in the region of the thenar eminence on the right hand; distal phalanx of the I finger cannot be flexed. What muscle was injured?

- a. Opposer muscle of thumb
- b. Abductor muscle of thumb
- c. Short flexor muscle of thumb
- d. Short abductor muscle of thumb
- e. Long flexor muscle of thumb**

200. A patient with neuritis of femoral nerve has disturbed flexion of thigh as well as disturbed crus extension in the knee joint. What muscles function is disturbed?

- a. Biceps muscle of thigh
- b. Semitendinous muscle
- c. Semimembranous muscle
- d. Quadriceps muscle of thigh**
- e. Triceps muscle of thigh

201. In the specimen of one of the parts of respiratory system a tubular organ was found. It has low epithelium, well developed muscular tunic, glands and cartilage are absent. Name this organ:

- a. Median bronchs
- b. Minor bronchs**
- c. Larynx
- d. Trachea

e. Major bronchs

202. Where should the catheter for evacuation of the lymph from the thoracic lymph duct be inserted?

a. To the left venous corner

b. To the superior vena cava

c. To the left inguinal vein

d. To the inferior vena cava

e. To the right venous corner

203. As a result of an accident a patient has intense painfullness and edema of the anterior crus surface; dorsal flexion of foot is hindered. Function of which crus muscle is most likely to be disturbed?

a. M.flexor hallucis longus

b. M.flexor digitorum longus

c. M.tibialis anterior

d. M.peroneus longus

e. M.peroneus brevis

204. A 40-year-old patient complains of intensive heartbeats, sweating, nausea, visual impairment, arm tremor, hypertension. From his anamnesis: 2 years ago he was diagnosed with pheochromocytoma. Hyperproduction of what hormones causes the given pathology?

a. ACTH

b. Thyroidal hormones

c. Aldosterone

d. Glucocorticoids

e. Catecholamines

205. A patient who suffers from cancer of back of tongue has an intense bleeding as a result of affection of dorsal lingual artery by the tumour. What vessel should be ligated to stop bleeding?

a. Dorsal lingual artery

b. Facial artery

c. Ascending pharyngeal artery

d. Lingual artery

e. Deep lingual artery

206. A 58-year-old patient with acute cardiac insufficiency has decreased volume of daily urine - oliguria. What is the mechanism of this phenomenon?

a. Reduced permeability of renal filter

b. Decreased glomerular filtration

c. Drop of oncotic blood pressure

d. Decreased number of functioning glomerules

e. Rise of hydrostatic blood pressure in capillars

207. An 18-year-old man was delivered to the hospital after a road accident. Examination at the traumatological department revealed multiple injuries of soft tissues of face in the region of the medial eye angle. The injuries caused massive haemorrhage. What arterial anastomosis might have been damaged in this region?

a. a. subclavia et a. ophthalmica

b. a. carotis interna et a. ophthalmica

c. a. carotis externa et a. subclavia

d. a. carotis interna et a. subclavia

e. a. carotis externa et a. carotis interna

208. After a 2 y.o. child has had flu, there appeared complaints about ear ache. A doctor revealed hearing impairment and inflammation of the middle ear. How did the infection penetrate into the middle ear?

a. Through atrium mastoideum

- b. Through canalis nasolacrimalis
- c. Through foramen jugularis
- d. Through canalis caroticus
- e. Through the auditory tube**

209. A surgeon has to find the common hepatic duct during the operative intervention on account of concrements in the gall ducts. The common hepatic duct is located between the leaves of:

- a. Hepatoduodenal ligament**
- b. Hepatorenal ligament
- c. Venous ligament
- d. Round ligament of liver
- e. Hepatogastric ligament

210. Cerebral trauma caused increase of ammonia formation. What aminoacid takes part in removal of ammonia from cerebral tissue?

- a. Valine
- b. Tyrosine
- c. Glutamic**
- d. Tryptophan
- e. Lysine

211. A 40-year-old woman was admitted to the infectious diseases department with high body temperature. Objectively: marked meningeal symptoms. A spinal cord puncture was made. What anatomic formation was punctured?

- a. Cisterna cerebellomedullaris posterior
- b. Spatium subarachnoideum**
- c. Spatium epidurale
- d. Spatium subdurale
- e. Cavum trigeminale

212. After resection of the middle third of femoral artery obliterated by a thromb the lower extremity is supplied with blood due to the surgical bypass. Name an artery that plays the main role in reestablishment of blood flow:

- a. Deep external pudendal artery
- b. Deep femoral artery**
- c. Descending genicular artery
- d. Superficial circumflex artery of hip bone
- e. Superficial epigastric artery

213. A patient's knee joint doesn't extend, there is no knee-jerk reflex, skin sensitivity of the anterior femoral surface is disturbed. What nerve structures are damaged?

- a. Femoral nerve**
- b. Big fibular nerve
- c. Inferior gluteal nerve
- d. Obturator nerve
- e. Superior gluteal nerve

214. The electronic microphoto of kidney fragment has exposed afferent glomerular arteriole, which has giant cells under its endothelium, containing secretory granules. Name the type of these cells:

- a. Juxtaglomerular**
- b. Smoothmuscular
- c. Interstitial
- d. Juxtavascular
- e. Mesangial

215. A 50 y.o. patient was admitted to the hospital with complaints about pain behind his breastbone, asphyxia during physical activity. Angiography revealed pathological changes in the posterior interventricular branch of the right coronary artery. What heart parts are affected?

- a. Right atrium
- b. Right atrioventricular valve
- c. Left atrium
- d. Anterior wall of the right and left ventricles

e. Posterior wall of the right and left ventricles

216. A patient was admitted to the surgical department with suspected inflammation of Meckels diverticulum. What part of bowels should be examined in order to discover the diverticulum in course of an operation?

- a. Duodenum
- b. Caecum
- c. Colon ascendens

d. Ileum

e. Jejunum

217. Examination of a newborn boys genitals revealed a cleft of urethra that opens on the inferior surface of his penis. What developmental anomaly is meant?

- a. Cryptorchism
- b. Hypospadia**
- c. Epispadia
- d. Hermaphroditism
- e. Monorchism

218. A patient complains about impaired evacuatory function of stomach (long-term retention of food in stomach). Examination revealed a tumour of initial part of duodenum. Specify localization of the tumour:

- a. Pars inferior
- b. Pars ascendens
- c. Flexura duodeni inferior

d. Pars superior

e. Pars descendens

219. A man after 1,5 litre blood loss has suddenly reduced diuresis. The increased secretion of what hormone caused such diuresis alteration?

- a. Cortisol
- b. Parathormone
- c. Corticotropin
- d. Natriuretic

e. Vasopressin

220. A young man consulted a doctor about disturbed urination. Examination of his external genitals revealed that urethra is split on top and urine runs out of this opening. What anomaly of external genitals development is the case?

- a. Hypospadia
- b. Epispadia**
- c. Hermaphroditism
- d. Phimosis
- e. Paraphimosis

221. A 35 year old patient applied to a doctor with complaints about having intense rhinitis and loss of sense of smell for a week. Objectively: nasal cavity contains a lot of mucus that covers mucous membrane and blocks olfactory receptors. In what part of nasal cavity are these receptors situated?

- a. Vestibule of nose
- b. Superior nasal turbinate**
- c. Inferior nasal turbinate
- d. Median nasal turbinate
- e. Common nasal meatus

222. Inflammatory process of modified subserous layer around cervix of the uterus caused an intensive pain syndrome. In what region of genitals does the pathological process take place?

- a. Perimetrium
- b. Parametrium**
- c. Myometrium
- d. Mesometrium
- e. Endometrium

223. In course of an operation surgeon removed a part of a lung that was ventilated by a tertiary bronchus accompanied by branches of pulmonary artery and other vessels. What part of a lung was removed?

- a. Inferior lobe
- b. Middle lobe
- c. Bronchopulmonary segment**
- d. Superior lobe
- e. Pulmonary lobule

224. While examining the oral cavity a stomatologist revealed inflammation of papillae on the border of the median and posterior third of the back of tongue. What papillae are inflamed?

- a. Papillae fungiformes
- b. Papillae filiformes
- c. Papillae conicae
- d. Papillae vallatae**
- e. Papillae foliatae

225. During complicated labour the symphysis pubis ruptured. What organ can be damaged mostly?

- a. Urinary bladder**
- b. Ovaria
- c. Uterus
- d. Uterine tubes
- e. Rectum

226. A patient with cholelithiasis fell ill with mechanic jaundice. Examination revealed that the stone was in the common bile duct. What bile-excreting ducts make up the obturated duct?

- a. Ductus hepaticus communis et ductus cysticus**
- b. Ductus hepaticus dexter et ductus cysticus
- c. Ductus hepaticus communis et ductus choledochus
- d. Ductus hepaticus sinister et ductus cysticus
- e. Ductus hepaticus dexter et sinister

227. Neurological examination of a 65 y.o. patient revealed a haemorrhage within the superior temporal gyrus. In the blood supply area of which artery is it?

- a. Posterior cerebral artery
- b. Anterior cerebral artery
- c. Middle cerebral artery**
- d. Anterior communicating artery
- e. Basilar artery

228. A 70 y.o. man has cut an abscess in the area of mammiform process during shaving. Two days later he was admitted to the hospital with inflammation of arachnoid membranes. How did the infection penetrate into the cavity of skull?

- a. v. emissariae mastoideae**
- b. v. tympanicae
- c. v. auriculares
- d. v. facialis
- e. v. labyrinthi

229. The cerebrospinal fluid is being examined for the purpose of differential meningitis diagnostics. At

what site is the lumbar puncture safe?

- a. L I-L II
- b. L II-L III
- c. L III-L IV**
- d. Th XII-L I
- e. L V-S I

230. Part of alveoles of a preterm infant didn't spread because of enhanced elastic recoil of lungs. How can this recoil be reduced?

- a. By fluid suction from the respiratory tracts
- b. By glucose introduction
- c. By pure oxygen inhalation
- d. By artificial pulmonary ventilation
- e. By surfactant introduction**

231. Preventive examination of a patient revealed an enlarged lymph node of metastatic origin on the medial wall of the left axillary crease. Specify the most likely localization of the primary tumour:

- a. Submandibular salivary gland
- b. Stomach
- c. Thyroid gland
- d. Mammary gland**
- e. Lung

232. A man suffering from osteochondrosis got acute pain in the abdominal muscles (lateral and anterior). During objective examination a physician diagnosed increased pain sensitivity of skin in the hypogastric region. This pain might be caused by affection of the following nerve:

- a. Obturator
- b. Sciatic
- c. Iliohypogastric**
- d. Femoral
- e. Genitofemoral

233. A woman suffering from osteochondrosis felt acute pain in her humeral articulation that became stronger when she abducted her shoulder. These symptoms might be caused by damage of the following nerve:

- a. Axillary nerve**
- b. Dorsal scapular nerve
- c. Thoracodorsal nerve
- d. Subclavicular nerve
- e. Subscapular nerve

234. A patient has a deep cut wound on the posterior surface of his shoulder in its middle third. What muscle might be injured?

- a. Coracobrachial muscle
- b. Triceps muscle of arm**
- c. Anconeus muscle
- d. Biceps muscle of arm
- e. Brachial muscle

235. A patient has pain, edema and reddening of his skin in the anterosuperior area of his thigh and his foot's thumb. What lymph nodes of his lower extremity responded to the inflammatory process?

- a. Superficial longitudinal
- b. General longitudinal
- c. Deep inguinal
- d. Internal longitudinal
- e. Superficial inguinal**

236. A patient got a craniocerebral trauma that resulted in right-side convergent strabismus. Damage

of which craniocerebral nerve caused such consequences?

- a. n.trigeminus
- b. n.facialis
- c. n.abducens**
- d. n.trochlearis
- e. n.aculomotorius

237. In case of a penetrating wound of the anterior abdominal wall the wound tract went above the lesser curvature of stomach. What peritoneum formation is most likely to be injured?

- a. Ligamentum triangulare sinistrum
- b. Ligamentum hepatogastricum**
- c. Ligamentum hepatoduodenale
- d. Ligamentum gastrocolicum
- e. Ligamentum hepatorenale

238. After a trauma a patient lost ability of elbow extension. This might have been caused by dysfunction of the following main muscle:

- a. m. triceps brachii**
- b. m. teres major
- c. m. levator scapulae
- d. m. infraspinatus
- e. m. subscapularis

239. A patient has been diagnosed with a compression fracture of a lumbar vertebra. As a result he has a considerable increase in curvature of the lumbar lordosis. Which ligament damage can induce such changes in the spine curvature?

- a. Anterior longitudinal ligament**
- b. Yellow ligament
- c. Interspinous ligament
- d. Iliolumbar ligament
- e. Posterior longitudinal ligament

240. After a craniocerebral trauma a patient lost the ability to execute learned purposeful movements (apraxia). The injury is most likely localized in the following region of the cerebral cortex:

- a. Gyrus lingualis
- b. Gyrus parahippocampalis
- c. Gyrus angularis
- d. Gyrus paracentralis
- e. Gyrus supramarginalis**

241. While performing an operation in the area of axillary crease a surgeon has to define an arterial vessel surrounded by fascicles of brachial plexus. What artery is it?

- a. A.profunda brachii
- b. A.subscapularis
- c. A.vertebralis
- d. A.transversa colli
- e. A.axillaris**

242. Examination of a patient with impaired blood coagulation revealed thrombosis of a branch of inferior mesenteric artery. What bowel segment is damaged?

- a. Colon ascendens
- b. Colon sigmoideum**
- c. Caecum
- d. Ileum
- e. Colon transversum

243. A patient was admitted to the surgical department with inguinal hernia. During the operation the surgeon performs plastic surgery on posterior wall of inguinal canal. What structure forms this wall?

- a. Peritoneum
- b. Transverse fascia**
- c. Inguinal ligament
- d. Aponeurosis of abdominal external oblique muscle
- e. Loose inferior edge of transverse abdominal muscle

244. A patient complains of dizziness and hearing loss. What nerve is damaged?

- a. Trigeminal
- b. Vagus
- c. Trochlear
- d. Vestibulocochlear**
- e. Sublingual

245. While palpating mammary gland of a patient a doctor revealed an induration in form of a node in the inferior medial quadrant. Metastases may extend to the following lymph nodes:

- a. Posterior mediastinal
- b. Bronchopulmonary
- c. Superior diaphragmal
- d. Parasternal**
- e. Profound lateral cervical

246. A patient got a trauma that caused dysfunction of motor centres regulating activity of head muscles. In what parts of cerebral cortex is the respective centre normally localized?

- a. Supramarginal gyrus
- b. Superior part of precentral gyrus
- c. Inferior part of precentral gyrus**
- d. Superior parietal lobule
- e. Angular gyrus

247. Examination of a 6-month-old child revealed a delay in closure of the occipital fontanelle. When should it normally close?

- a. Until 3 months**
- b. Until 6 months
- c. Until the end of the second year of life
- d. Until the end of the first year of life
- e. Before the child is born

248. A patient was diagnosed with paralysis of facial and masticatory muscles. The haematoma is inside the genu of internal capsule. What conduction tract is damaged?

- a. Tr. cortico-fronto-pontinus
- b. Tr. cortico-temporo-parieto-occipito-pontinus
- c. Tr. cortico-spinalis
- d. Tr. cortico-thalamicus
- e. Tr. cortico-nuclearis**

249. A patient has lost skin sensitivity in the region of the medial surface of his shoulder. This is the result of dysfunction of the following nerve:

- a. Radial nerve
- b. Medial antebrachial cutaneous nerve
- c. Medial brachial cutaneous nerve**
- d. Ulnar nerve
- e. Axillary nerve

250. A foreign body (a button) closed space of the right superior lobar bronchus. What segments of the right lung won't be supplied with air?

- a. Apical and posterior basal
- b. Superior and inferior lingular
- c. Apical, posterior, anterior**

- d. Apical and median basal
- e. Medial and lateral

251. A patient was diagnosed with Bartholin'sitis (inflammation of greater vulvovaginal glands). In which organ of urogenital system are these glands localized?

- a. Large lips of pudendum
- b. Clitoris
- c. Uterus
- d. Vagina
- e. Small lips of pudendum

252. While performing an inguinal canal operation on account of hernia a surgeon damaged the canal's contents. What exactly was damaged?

- a. Lig. inguinale
- b. -
- c. Urachus
- d. Lig. teres uteri
- e. Funiculus spermaticus

253. Ultrasonic examination of a patient revealed aneurysm in the area of aortic arch that caused alteration of vocal function of larynx. What nerve was constricted?

- a. Superior laryngeal
- b. Diaphragmatic
- c. Recurrent laryngeal
- d. Mandibular
- e. Sublingual

254. Surgical approach to the thyroid gland from the transverse (collar) approach involves opening of interaponeurotic suprasternal space. What anatomic structure localized in this space is dangerous to be damaged?

- a. External jugular vein
- b. Inferior thyroid artery
- c. Superior thyroid artery
- d. Jugular venous arch
- e. Subclavicular vein

255. In course of a small pelvis operation it became necessary to ligate an ovarian artery. What formation may be accidentally ligated together with it?

- a. Internal iliac vein
- b. Urethra
- c. Uterine tube
- d. Round ligament of uterus
- e. Ureter

256. An injured person was delivered to the hospital with a penetrating wound in the left lateral region of abdomen. What part of the large intestine is most likely damaged?

- a. Colon transverses
- b. Colon ascendens
- c. Colon descendens
- d. Caecum
- e. Rectum

257. After a road accident a driver was delivered to the hospital with an injury of the medial epicondyle of humerus. What nerve might be damaged in this case?

- a. n. medianus
- b. n. ulnaris
- c. n. axillaris
- d. n. radialis

e. n. muscolocutaneus

258. A patient with a knife wound in the left lumbar part was delivered to the emergency hospital. In course of operation a surgeon found that internal organs were not damaged but the knife injured one of muscles of renal pelvis. What muscle is it?

- a. Abdominal internal oblique muscle
- b. Abdominal external oblique muscle
- c. Iliac muscle
- d. Erector muscle of spine

e. Greater psoas muscle

259. A 25 year old patient was examined by a medical board. Examination revealed pathology of chest. Transverse dimensions were too small and the sternum was strongly protruding. What chest type is it?

- a. Cylindrical chest
- b. Barrel chest
- c. Funnel chest
- d. Flat chest

e. Keel chest

260. A man with a stab wound in the area of quadrilateral foramen applied to a doctor. Examination revealed that the patient was unable to draw his arm aside from his body. What nerve is most probably damaged?

a. N. axillaris

- b. N. radialis
- c. N. subclavius
- d. N. ulnaris
- e. N. medianus

261. Brain tomography revealed a tumour in the region of red nucleus. What part of brain is damaged?

a. Midbrain

- b. Cerebellum
- c. Pons cerebelli
- d. Interbrain
- e. Medulla oblongata

262. A 10-year-old child complains of weakness, nausea, irritability. Helminthes of white color and 5-10 mm long were found on the underwear. On microscopy of the scrape from the perianal folds achromic ova of unsymmetrical form were revealed. Indicate what helminth is parasiting on the child?

- a. Trichina
- b. Ascaris lumbricoides
- c. Ancylostoma duodenale
- d. Trichuris

e. Enterobius vermicularis

263. A patient has been brought to the hospital with the complaints of headache, pain in left hypochondrium. He has been ill for 1,5 weeks. The sudden illness began with the increase of body temperature up to 39,9°C. In 3 hours the temperature decreased and hypopnoea began. The attacks repeat rhythmically in 48 hours. The patient had visited one African country. The doctors have suspected malaria. What method of laboratory diagnostics is necessary to use?

a. Urine examination

b. Blood examination

- c. Stool examination
- d. Immunological tests
- e. Examination of vaginal and urethral discharge

264. Slime, blood and protozoa 30-200 microns of length have been revealed in a man's feces. The

body is covered with cilia and has correct oval form with a little bit narrowed forward and wide round shaped back end. On the forward end a mouth is visible. In cytoplasm there are two nucleuses and two short vacuoles. For whom are the described attributes typical?

- a. *Lambia*
- b. *Trichomonas*
- c. Intestinal amoeba
- d. *Balantidium***
- e. Dysenteric amoeba

265. A patient in three weeks after acute myocardial infarction has pain in the heart and joints and pneumonia. What is the main mechanism of development of post-infarction Dressler's syndrome?

- a. Ischemia of myocardium
- b. Secondary infection
- c. Vessels thrombosis
- d. Autoimmune inflammation**
- e. Resorption of enzymes from necrotized area of myocardium

266. Young man felt sharp pain in the back during active tightening on the horizontal bar. Objectively: pain while moving of upper extremity, limited pronation and adduction functions. Sprain of what muscle is presented?

- a. *M. romboideus major*
- b. *M. levator scapulae*
- c. *M. latissimus dorsi***
- d. *M. trapezius*
- e. *M. subscapularis*

267. A patient has a right-sided fracture in the region of the frontal third of mandible accompanied by a haematoma in the region of chin. It is caused by the injury of the following artery:

- a. Mental**
- b. Lingual
- c. Palatine
- d. Facial
- e. Inferior labial

268. Children often have heavy nasal breathing resulting from excessive development of lymphoid tissue of pharyngeal mucous membrane. What tonsils growth may cause this effect?

- a. Tonsilla pharyngea**
- b. Tonsilla lingualis
- c. All above mentioned tonsils
- d. Tonsilla tubaria
- e. Tonsilla palatina

269. In course of laparotomy a surgeon revealed gangrenous lesion of descending colon. It was caused by thrombosis of the following artery:

- a. Ileocolic
- b. Superior mesenteric artery
- c. Median colic
- d. Dexter colic
- e. Sinister colic**

270. Three separate bones connected with cartilage in the area of pelvis cavity are noticed on the X-ray of the pelvis. What are these bones?

- a. Iliac, sacral, coccyx
- b. Sacral, pubic, coccyx
- c. Pubic, sciatic, femoral
- d. Sciatic, femoral, sacral
- e. Iliac, pubic, sciatic**

271. As a result of a cold a patient has the abnormal pain and temperature sensitivity of the frontal 2/3 of his tongue. Which nerve must have been damaged?

- a. Glossopharyngeal
- b. Trigeminus**
- c. Accessory
- d. Sublingual
- e. Vagus

272. A 60-year-old patient has reduced perception of high-frequency sounds. What structures disorder of auditory analyzer caused these changes?

- a. Tympanic membrane
- b. Main membrane of cochlea near the oval window**
- c. Eustachian tube
- d. Main membrane of cochlea near helicotrema
- e. Muscles of middle ear

273. During investigation of patient, it was found formation in the white substance of cerebral hemispheres with location in the knee and frontal part of posterior crus of internal capsule. Fibres of what conductive tract of the brain will be disrupted?

- a. Tr. frontopontinus
- b. Tr. parietooccipitopontinus
- c. Tr. frontothalamicus
- d. Tr. thalamocorticalis
- e. Tr. pyramidalis**

274. Only one factor can influence the charge of amino acid radicals in the active centre of enzyme. Name this factor:

- a. PH medium**
- b. Temperature
- c. The surplus of a product
- d. The presence of a competitive inhibitor
- e. Pressure

275. Succinate dehydrogenase catalyses the dehydrogenation of succinate. Malonic acid $\text{HOOC-CH}_2\text{-COOH}$ is used to interrupt the action of this enzyme. Choose the inhibition type:

- a. Allosteric
- b. Limited proteolysis
- c. Dephosphorylation
- d. Competitive**
- e. Non-competitive

276. The gluconeogenesis is activated in the liver after intensive physical trainings .What substance is utilized in gluconeogenesis first of all in this case:

- a. Glucose
- b. Pyruvate
- c. Lactate**
- d. Glutamate
- e. Alanine

277. A patient with a stab wound of the anterior stomach wall is in surgical care. What formation of abdominal cavity did the stomach contents get into?

- a. Omental bursa
- b. Left mesenteric sinus
- c. Right mesenteric sinus
- d. Antegastric bursa**
- e. Hepatic bursa

278. A patient has tissue ischemia below the knee joint accompanied with intermittent claudication.

What artery occlusion should be suspected?

- a. Peroneal artery
- b. Anterior tibial artery
- c. Proximal part of femoral artery
- d. Popliteal artery**
- e. Posterior tibial artery

279. A patient has a malignisation of thoracic part of esophagus. What lymphatic nodes are regional for this organ?

- a. Nodi lymphatici prevertebralis
- b. Nodi lymphatici paratrachealis
- c. Anulus lymphaticus cardiae**
- d. Nodi lymphatici pericardiales laterales
- e. Nodi lymphatici mediastinales posteriores

280. After a trauma of soft tissues in the region of the posterior surface of medial condyle of humerus a patient has got a skin prickle of medial forearm surface. Which of the listed nerves is located in the affected region?

- a. N.dorsalis scapularis
- b. N.musculocutaneu
- c. N.ulnaris**
- d. N.subscapularis
- e. N.radialis

281. A patients blood was analyzed and the decreased erythrocyte's sedimentation rate (ESR) was discovered. What disease from the listed below is accompanied with decreased ESR?

- a. Myocardial infarction
- b. Polycytemia**
- c. Splenomegaly
- d. Hepatitis
- e. Vitamin B deficiency

282. A 55-year-old patient was hospitalized in result of the trauma of the medial group of femoral muscles. What kind of movements is the patient unable to do?

- a. Adduction of femur**
- b. Flexion of femur
- c. Supination of femur
- d. Extension of femur
- e. Abduction of femur

283. A mother of a newborn complains of her baby's constant belching with undigested milk. Which developmental anomaly is it an evidence of?

- a. Esophageal atresia**
- b. Faux lupinum
- c. Esophageal fistula
- d. Anal atresia
- e. Labium leporium

284. During the endoscopy the inflammation of a major papilla of the duodenum and the disturbances of bile secretion were found. In which part of duodenum were the problems found?

- a. Descendent part**
- b. Bulb
- c. Lower horizontal part
- d. Upper horizontal part
- e. Ascendant part

285. A 32-year-old patient has been diagnosed with Bartholinitis (inflammation of Bartholins glands). In what part of the female urogenital system are the Bartholins glands located?

- a. The vagina
- b. The uterus
- c. The labia minor
- d. The clitoris
- e. The labia major**

286. A 50 year-old patient had hemorrhage of the brain and was taken to the hospital. The place of hemorrhage was revealed on the lateral hemispheres surfaces during the medical examination. What artery was injured ?

- a. The posterior communicating artery
- b. The middle cerebral artery**
- c. The posterior cerebral artery
- d. The anterior cerebral artery
- e. The anterior communicating artery

287. A 30-year-old patient was hospitalized due to bleeding of the facial artery . What place on the face has to be pressed to stop bleeding?

- a. The molar bone
- b. The mandible's edge**
- c. The mandible's branch
- d. The mental process
- e. The nose's back

288. A 19 year-old patient was diagnosed with appendicitis and was hospitalized. The surgical operation on ablating appendix vermiformis is to be performed. What artery must be fixed to stop bleeding during the surgical operation?

- a. The colica dextra
- b. The colica sinistra
- c. The iliac
- d. The ileocolic artery**
- e. The colica media

289. During the operation on the hip joint of a 5-year-old child her ligament was damaged which caused bleeding. What ligament was damaged?

- a. Iliofemoral
- b. Perpendicular of the acetabule
- c. The head of the thigh**
- d. Pubofemoral
- e. Ischiofemoral

290. A 6-year-old child fell on the cutting object and traumatized soft tissues between tibia and fibula . What kind of bone connection was injured?

- a. Membrane**
- b. Ligament
- c. Gomphosis
- d. Fontanel
- e. Suture

291. Usually the intravenous injection is done into median cubital vein because it is slightly movable due to fixation by the soft tissues. What does it fix in the cubital fossa?

- a. Brachial muscle
- b. Tendon of the triceps muscle
- c. Aponeurosis of biceps muscle**
- d. Brachioradial muscle
- e. Anconeus muscle

292. A female patient with a tumour of pancreas has developed mechanic jaundice resulting from compression of a bile-excreting duct. Which duct is compressed?

- a. Ductus cysticus
- b. Ductus hepaticus dexter
- c. Ductus hepaticus sinister
- d. Ductus choledochus**
- e. Ductus hepaticus communis

293. A 28 year old woman has been diagnosed with extrauterine pregnancy complicated by the fallopian tube rupture. The blood is most likely to penetrate the following peritoneal space:

- a. Vesicouterine
- b. Left mesenteric sinus
- c. Intersigmoid sinus
- d. Rectouterine**
- e. Right mesenteric sinus

294. Victim has elbow joint trauma with avulsion of medial epicondyle of humerus. What nerve can be damaged in this trauma?

- a. Musculocutaneous nerve
- b. Radial
- c. Ulnar**
- d. Cardiac cutaneous nerve
- e. Medial cutaneous nerve of forearm

295. A 5-year-old child was admitted to the otorhinolaryngological department with diagnosis - suppurative inflammation of the middle ear. Disease started from the inflammation of the nasopharynx. Through the what canal of the temporal bone did the infection get into the tympanic cavity?

- a. Tympanic Canaliculus tympanicus
- b. Canaliculus chordal tympani
- c. Canaliculi caroticotympanici
- d. Musculotubal canal**
- e. Carotid canal

296. Inflammation of the tympanic cavity (purulent otitis media) was complicated by inflammation of the mammillary process sockets. What wall of the tympanic cavity did the pus penetrate into the sockets through?

- a. Posterior**
- b. Medial
- c. Superior
- d. Lateral
- e. Anterior

297. A 19-year-old female suffers from tachycardia in rest condition, weight loss, excessive sweating, exophthalmos and irritability. What hormone would you expect to find elevated in her serum?

- a. ACTH
- b. Insulin
- c. Cortisol
- d. Mineralocorticoids
- e. Thyroxine**

298. A 60-year-old patient was diagnosed with hypothalamic lateral nuclei stroke. What changes in patient's behavior may be expected?

- a. Depression
- b. Aggressive behaviour
- c. The rejection of food**
- d. Thirst
- e. Unsatisfied hunger

299. Nowadays about 50 minor bases have been found in the t-RNA structure besides the main four

nitrogenous bases. Choose the minor nitrogenous base:

- a. Cysteine
- b. Uracil
- c. Dihydrouracil**
- d. Adenine
- e. Cytosine

300. Obturative jaundice developed in a 60-year-old patient because of malignant tumour of the big papillary of the duodenal. Lumen of what anatomical structure is squeezed with tumour?

- a. Right hepatic duct
- b. Left hepatic duct
- c. Cystic duct
- d. Common hepatic duct
- e. Hepatopancreatic ampulla**

301. Patient complains of frequent and difficult urination. Imperfection of what formation can cause it?

- a. Testicle adnexa
- b. Sperm bubbles
- c. Testicles
- d. Bulb-uretic glands
- e. Prostate**

302. Child inspired button. Where is it likely to be?

- a. In the larynx
- b. In the gullet
- c. In the left main bronchus
- d. In the trachea
- e. In the right main bronchus**

303. A man with internal abdominal right side injury and suspicion of liver rupture was admitted to the traumatological department. In what peritoneal structure will blood accumulate?

- a. Excavatio rectovesicalis**
- b. Recessus intersigmoideus
- c. Recessus duodenalis inferior
- d. Fossa ischio-analis
- e. Bursa omentalis

304. A histological specimen presents parenchymal organ, which has cortex and medulla. Cortex consists of epitheliocytes bars with blood capillaries between them; the bars form three zones. Medulla consists of chromaffinocytes and venous sinusoids. Which organ has these morphological features?

- a. Thyroid
- b. Adrenal gland**
- c. Lymph node
- d. Kidney
- e. Thymus

305. After trauma a 44-year-old patient had a rupture of left palm muscle tendons and of the surface of blood vessels. The bloodstream was normalized after operation and removal of the most part of the necrotically changed muscle tissue. What vessels have helped with restoration of bloodstream?

- a. Arcus palmaris profundus**
- b. Aa. digitales palmares communes
- c. Aa. perforantes
- d. Aa. metacarpeae palmares
- e. Arcus palmaris superficialis

306. A 45-year-old man applied to the trauma unit because of domestic shoulder trauma. Objectively:

flexibility, reduction and pronation functions of the shoulder are absent. What muscle was injured?

- a. Infraspinous muscle
- b. Supraspinous muscle
- c. Subscapular muscle
- d. Teres minor muscle
- e. Teres major muscle**

307. A 53-year-old female patient was diagnosed with liver rupture resulting from a blunt abdominal injury. The escaped blood will be assembled in the following anatomic formation:

- a. Rectouterine pouch**
- b. Right mesenteric sinus
- c. Left mesenteric sinus
- d. Omental bursa
- e. Vesicouterine pouch

308. A patient complains about edemata of legs, skin cyanosis, small ulcers on one side of the lateral condyle. Examination revealed a swelling, enlarged veins, formation of nodes. The pathological process has started in the following vein:

- a. V. saphena parva**
- b. V. femoralis
- c. V. iliaca externa
- d. V. profunda femoris
- e. V. saphena magna

309. A 70 year old female patient was diagnosed with fracture of left femoral neck accompanied by disruption of ligament of head of femur. The branch of the following artery is damaged:

- a. Obturator**
- b. External iliac
- c. Internal pudendal
- d. Inferior gluteal
- e. Femoral

310. A 6 month old baby ill with bronchitis was taken for an X-ray of chest. Apart of changes associated with bronchi the X-ray film showed a shadow of thymus gland. What might have caused such changes?

- a. Its the effect of bronchitis
- b. It is caused by thymus inflammation
- c. It is caused by neoplastic process
- d. The above-mentioned condition is a normal variant for this age**
- e. It is caused by abnormal position

311. A patient suffering from chronic myeloleukemia has got the following symptoms of anemia: decreased number of erythrocytes and low haemoglobin concentration, oxyphilic and polychromatophilic normocytes, microcytes. What is the leading pathogenetic mechanism of anemia development?

- a. Chronic haemorrhage
- b. Substitution of haemoblast**
- c. Deficiency of vitamin B12
- d. Intravascular hemolysis of erythrocytes
- e. Reduced synthesis of erythropoietin

312. A 7-year-old girl has signs of anemia. Laboratory examination revealed pyruvate kinase deficiency in erythrocytes. What process disturbance plays the main role in anemia development?

- a. Aminoacids desamination
- b. Anaerobic glycolysis**
- c. Tissue respiration
- d. Oxidative phosphorylation
- e. Peroxide decomposition

313. A patient complained about being unable to adduct and abduct fingers in the metacarpophalangeal articulations towards and away from the 3rd finger. Which muscles function is impaired?

a. Interosseous muscles

b. Breviflexors of fingers

c. Extensors

d. Long flexors of fingers

e. Lumbrical muscles

314. A 25-year-old patient complained of the decreased vision. Accommodation disorders, dilated pupil, not reacting on the light were revealed on examination. Function of what muscles is disturbed?

a. Inferior oblique muscle, ciliary

b. Pupil dilating muscle, ciliary

c. Pupil narrowing muscle, ciliary

d. Lateral rectus muscle, pupil narrowing

e. Pupil narrowing and dilating muscle

315. A 35 year old man with a trauma of his left hand was admitted to the traumatology department. Objectively: cut wound of palmar surface of left hand; middle phalanxes of II-V fingers dont bend. What muscles are damaged?

a. Superficial finger flexor

b. Lumbrical muscles

c. Dorsal interosseous muscles

d. Palmar interosseous muscles

e. Profound finger flexor

316. In the specimen of one of the parts of respiratory system a tubular organ was found. It has low epithelium, well developed muscular tunic, glands and cartilage are absent. Name this organ:

a. Trachea

b. Major bronchs

c. Median bronchs

d. Minor bronchs

e. Larynx

317. A patient has difficulties with hand movement. Examination revealed inflammation of common synovial sheath of flexor muscles. It is known from the patients anamnesis that he got a stab wound of finger a week ago. Which finger was most probably damaged?

a. Digitus minimus

b. Digitus medius

c. Digitus anularis

d. Index

e. Pollex

318. An injured man has bleeding from branches of carotid artery. For a temporary arrest of bleeding it is necessary to press the carotid artery to the tubercle of a cervical vertebra. Which vertebra is it?

a. III

b. II

c. V

d. IV

e. VI

319. During cystoscopy mucous membrane of urinary bladder normally makes folds except for a single triangular area with smooth mucosa. This triangle is located in the following part of urinary bladder:

a. Bladder apex

b. Bladder cervix

c. Bladder floor

d. Bladder body

e. Bladder isthmus

320. A patient who suffers from cancer of back of tongue has an intense bleeding as a result of affection of dorsal lingual artery by the tumour. What vessel should be ligated to stop bleeding?

- a. Facial artery
- b. Ascending pharyngeal artery
- c. Dorsal lingual artery
- d. Deep lingual artery

e. Lingual artery

321. An 18-year-old man was delivered to the hospital after a road accident. Examination at the traumatological department revealed multiple injuries of soft tissues of face in the region of the medial eye angle. The injuries caused massive haemorrhage. What arterial anastomosis might have been damaged in this region?

- a. A. subclavia et a. ophthalmica
- b. A. carotis interna et a. ophthalmica
- c. A. carotis externa et a. subclavia
- d. A. carotis interna et a. subclavia

e. A. carotis externa et a. carotis interna

322. A surgeon has to find the common hepatic duct during the operative intervention on account of concrements in the gall ducts. The common hepatic duct is located between the leaves of:

- a. Hepatogastric ligament
- b. Round ligament of liver
- c. Venous ligament

d. Hepatoduodenal ligament

e. Hepatorenal ligament

323. Cerebral trauma caused increase of ammonia formation. What aminoacid takes part in removal of ammonia from cerebral tissue?

- a. Tryptophan
- b. Lisine
- c. Tyrosine
- d. Valine

e. Glutamic

324. A 40-year-old woman was admitted to the infectious diseases department with high body temperature. Objectively: marked meningeal symptoms. A spinal cord puncture was made. What anatomic formation was punctured?

- a. Spatium epidurale
- b. Spatium subdurale

c. Spatium subarachnoideum

- d. Cavum trigeminale
- e. Cisterna cerebellomedullaris posterior

325. After resection of the middle third of femoral artery obliterated by a thromb the lower extremity is supplied with blood due to the surgical bypass. Name an artery that plays the main role in reestablishment of blood flow:

- a. Descending genicular artery
- b. Superficial circumflex artery of hip bone

c. Deep femoral artery

- d. Superficial epigastric artery
- e. Deep external pudendal artery

326. A patient's knee joint doesn't extend, there is no knee-jerk reflex, skin sensitivity of the anterior femoral surface is disturbed. What nerve structures are damaged?

- a. Big fibular nerve
- b. Superior gluteal nerve

c. Femoral nerve

- d. Obturator nerve
- e. Inferior gluteal nerve

327. The electronic microphoto of kidney fragment has exposed afferent glomerular arteriole, which has giant cells under its endothelium, containing secretory granules. Name the type of these cells:

- a. Mesangial
- b. Juxtavascular
- c. Interstitial

d. Juxtaglomerular

- e. Smoothmuscular

328. A patient complains about impaired evacuatory function of stomach (long-term retention of food in stomach). Examination revealed a tumour of initial part of duodenum. Specify localization of the tumour:

a. Pars superior

- b. Pars descendens
- c. Flexura duodeni inferior
- d. Pars ascendens
- e. Pars inferior

329. A young man consulted a doctor about disturbed urination. Examination of his external genitals revealed that urethra is split on top and urine runs out of this opening. What anomaly of external genitals development is the case?

- a. Phimosis
- b. Paraphimosis
- c. Hypospadias

d. Epispadia

- e. Hermaphroditism

330. A 35 year old patient applied to a doctor with complaints about having intense rhinitis and loss of sense of smell for a week. Objectively: nasal cavity contains a lot of mucus that covers mucous membrane and blocks olfactory receptors. In what part of nasal cavity are these receptors situated?

- a. Common nasal meatus
- b. Vestibule of nose
- c. Median nasal turbinate
- d. Inferior nasal turbinate

e. Superior nasal turbinate

331. While examining the oral cavity a stomatologist revealed inflammation of papillae on the border of the median and posterior third of the back of tongue. What papillae are inflamed?

a. Papillae vallatae

- b. Papillae foliatae
- c. Papillae conicae
- d. Papillae filiformes
- e. Papillae fungiformes

332. Examination of a patient revealed an abscess of pterygopalatine fossa. Where can the infection spread to unless the disease is managed in time?

- a. To the tympanic cavity

b. To the orbit

- c. To the frontal sinus
- d. To the interpterygoid space
- e. To the subgaleal temporal space

333. A patient with cholelithiasis fell ill with mechanic jaundice. Examination revealed that the stone was in the common bile duct. What bile-excreting ducts make up the obturated duct?

- a. Ductus hepaticus communis et ductus choledochus

b. Ductus hepaticus communis et ductus cysticus

- c. Ductus hepaticus dexter et ductus cysticus
- d. Ductus hepaticus dexter et sinister
- e. Ductus hepaticus sinister et ductus cysticus

334. A 70 y.o. man has cut an abscess off in the area of mammiform process during shaving. Two days later he was admitted to the hospital with inflammation of arachnoid membranes. How did the infection penetrate into the cavity of skull?

a. V.emissariae mastoideae

- b. V.v.tympanicae
- c. V.v.auriculares
- d. V.facialis
- e. V.v.labyrinthe

335. The cerebrospinal fluid is being examined for the purpose of differential meningitis diagnostics. At what site is the lumbar puncture safe?

- a. L II-L III
- b. Th XII-L I
- c. L V-S I

d. L III-L IV

- e. L I-L II

336. While preparing a patient to the operation the heart chambers pressure was measured. In one of them the pressure changed during one heart cycle from 0 to 120 mm Hg. What chamber of heart was it?

- a. Right atrium
- b. Right ventricle

c. Left ventricle

- d. Left atrium
- e. -

337. Part of alveoles of a preterm infant didn't spread because of enhanced elastic recoil of lungs. How can this recoil be reduced?

- a. By pure oxygen inhalation
- b. By fluid suction from the respiratory tracts
- c. By glucose introduction

d. By surfactant introduction

- e. By artificial pulmonary ventilation

338. Preventive examination of a patient revealed an enlarged lymph node of metastatic origin on the medial wall of the left axillary crease. Specify the most likely localization of the primary tumour:

- a. Lung
- b. Submandibular salivary gland

c. Mammary gland

- d. Stomach
- e. Thyroid gland

339. A man suffering from osteochondrosis got acute pain in the abdominal muscles (lateral and anterior). During objective examination a physician diagnosed increased pain sensitivity of skin in the hypogastric region. This pain might be caused by affection of the following nerve:

a. Iliohypogastric

- b. Obturator
- c. Genitofemoral
- d. Femoral
- e. Sciatic

340. A woman suffering from osteochondrosis felt acute pain in her humeral articulation that became stronger when she abducted her shoulder. These symptoms might be caused by damage of the

following nerve:

- a. Thoracodorsal nerve
- b. Axillary nerve**
- c. Dorsal scapular nerve
- d. Subscapular nerve
- e. Subclavicular nerve

341. Pyeloureterography X-ray photo showed a renal pelvis with minor calyces only (major calyces were absent). What form of urinary tracts of a kidney was revealed?

- a. Mature
- b. Fetal
- c. Embryonal**
- d. Ampullar
- e. -

342. A patient got a craniocerebral trauma that resulted in right-side convergent strabismus. Damage of which craniocerebral nerve caused such consequences?

- a. N. oculomotorius
- b. N. abducens**
- c. N. trigeminus
- d. N. facialis
- e. N. trochlearis

343. In case of a penetrating wound of the anterior abdominal wall the wound tract went above the lesser curvature of stomach. What peritoneum formation is most likely to be injured?

- a. Ligamentum hepatoduodenale
- b. Ligamentum gastrocolicum
- c. Ligamentum hepatogastricum**
- d. Ligamentum hepatorenale
- e. Ligamentum triangulare sinistrum

344. After a trauma a patient lost ability of elbow extension. This might have been caused by dysfunction of the following main muscle:

- a. M. triceps brachii**
- b. M. teres major
- c. M. levator scapulae
- d. M. infraspinatus
- e. M. subscapularis

345. While playing a child got a punch in the presternum region. As a result of this trauma an organ located behind the presternum was damaged. Name this organ:

- a. Pericardium
- b. Larynx
- c. Thyroid gland
- d. Heart
- e. Thymus**

346. A patient has been diagnosed with a compression fracture of a lumbar vertebra. As a result he has a considerable increase in curvature of the lumbar lordosis. Which ligament damage can induce such changes in the spine curvature?

- a. Interspinous ligament
- b. Anterior longitudinal ligament**
- c. Yellow ligament
- d. Posterior longitudinal ligament
- e. Iliolumbar ligament

347. After a craniocerebral trauma a patient lost the ability to execute learned purposeful movements (apraxia). The injury is most likely localized in the following region of the cerebral cortex:

a. Gyrus supramarginalis

- b. Gyrus paracentralis
- c. Gyrus parahippocampalis
- d. Gyrus lingualis
- e. Gyrus angularis

348. A patient got an injury of spinal marrow in a road accident that caused loss of tactile sensation, posture sense, vibration sense. What conduction tracts are damaged?

a. Tectospinal tract

b. Fascicle of Goll and cuneate fascicle

- c. Rubrospinal tract
- d. Anterior spinocerebellar tract
- e. Reticulospinal tract

349. Examination of a patient revealed hypertrophy and inflammation of lymphoid tissue, edema of mucous membrane between palatine arches (acute tonsillitis). What tonsil is normally situated in this area?

a. Tonsilla palatina

- b. Tonsilla tubaria
- c. -
- d. Tonsilla lingualis
- e. Tonsilla pharyngealis

350. Examination of a patient with impaired blood coagulation revealed thrombosis of a branch of inferior mesenteric artery. What bowel segment is damaged?

a. Colon sigmoideum

- b. Caecum
- c. Colon ascendens
- d. Colon transversum
- e. Ileum

351. A patient was admitted to the surgical department with inguinal hernia. During the operation the surgeon performs plastic surgery on posterior wall of inguinal canal. What structure forms this wall?

- a. Aponeurosis of abdominal external oblique muscle
- b. Loose inferior edge of transverse abdominal muscle
- c. Peritoneum

d. Transverse fascia

e. Inguinal ligament

352. In order to prevent massive haemorrhage in the region of oral cavity floor it is required to ligate an artery which is located within Pirogovs triangle. What artery is it?

- a. Ascending pharyngeal artery
- b. Maxillary artery
- c. Superior thyroid artery
- d. Facial artery

e. Lingual artery

353. A man with an injury of the dorsal area of his neck was admitted to the resuscitation department. What muscle occupies this area?

a. M.trapezius

- b. M.latissimus dorsi
- c. M.scalenus anterior
- d. M.rhomboideus minor
- e. M.sternocleidomastoideus

354. A patient complains of dizziness and hearing loss. What nerve is damaged?

a. Trochlear

b. Vestibulocochlear

- c. Sublingual
- d. Trigemini
- e. Vagus

355. A patient got a trauma that caused dysfunction of motor centres regulating activity of head muscles. In what parts of cerebral cortex is the respective centre normally localized?

- a. Superior part of precentral gyrus
- b. Superior parietal lobule
- c. Angular gyrus
- d. Inferior part of precentral gyrus**
- e. Supramarginal gyrus

356. Examination of a 6-month-old child revealed a delay in closure of the occipital fontanelle. When should it normally close?

- a. Until 6 months
- b. Before the child is born
- c. Until 3 months**
- d. Until the end of the first year of life
- e. Until the end of the second year of life

357. A foreign body (a button) closed space of the right superior lobar bronchus. What segments of the right lung won't be supplied with air?

- a. Apical and median basal
- b. Medial and lateral
- c. Superior and inferior lingular
- d. Apical and posterior basal
- e. Apical, posterior, anterior**

358. A patient was diagnosed with Bartholin'sitis (inflammation of greater vulvovaginal glands). In which organ of urogenital system are these glands localized?

- a. Uterus
- b. Large lips of pudendum**
- c. Clitoris
- d. Small lips of pudendum
- e. Vagina

359. While performing an inguinal canal operation on account of hernia a surgeon damaged the contents. What exactly was damaged?

- a. Funiculus spermaticus**
- b. Lig. teres uteri
- c. -
- d. Lig. inguinale
- e. Urachus

360. Ultrasonic examination of a patient revealed aneurysm in the area of aortic arch that caused alteration of vocal function of larynx. What nerve was constricted?

- a. Mandibular
- b. Sublingual
- c. Diaphragmatic
- d. Superior laryngeal
- e. Recurrent laryngeal**

361. Surgical approach to the thyroid gland from the transverse (collar) approach involves opening of interaponeurotic suprasternal space. What anatomic structure localized in this space is dangerous to be damaged?

- a. Subclavicular vein
- b. External jugular vein
- c. Jugular venous arch**

- d. Inferior thyroid artery
- e. Superior thyroid artery

362. An injured person was delivered to the hospital with a penetrating wound in the left lateral region of abdomen. What part of the large intestine is most likely damaged?

- a. Rectum
- b. Colon descendens**
- c. Colon transverses
- d. Colon ascendens
- e. Caecum

363. After a road accident a driver was delivered to the hospital with an injury of the medial epicondyle of humerus. What nerve might be damaged in this case?

- a. N. radialis
- b. N. musculocutaneus
- c. N. medianus
- d. N. ulnaris**
- e. N. axillaris

364. A 25 year old patient was examined by a medical board. Examination revealed pathology of chest. Transverse dimensions were too small and the sternum was strongly protruding. What chest type is it?

- a. Funnel chest
- b. Cylindrical chest
- c. Barrel chest
- d. Keeled chest**
- e. Flat chest

365. A man with a stab wound in the area of quadrilateral foramen applied to a doctor. Examination revealed that the patient was unable to draw his arm aside from his body. What nerve is most probably damaged?

- a. N. subclavius
- b. N. axillaris**
- c. N. radialis
- d. N. medianus
- e. N. ulnaris

366. A patient with severe poisoning was brought into the intensive care unit. In the course of complex treatment the subclavian vein needs to be catheterized for medicine administration. This vein is located in the following topographic structure:

- a. Spatium antescalenum**
- b. Spatium retrosternocleidomastoideus
- c. Trigonum omotrapezoideum
- d. Spatium interaponeuroticum suprasternale
- e. Spatium interscalenum

367. A 52-year-old woman came to the neurologist with complaints of loss of skin sensitivity on the right half of her face in the area of the lower eyelid, nasal arch, and upper lip. What branch of what nerve is damaged in this patient?

- a. Ophthalmic branch of the trigeminal nerve
- b. Greater petrosal nerve branching from the facial nerve
- c. Maxillary branch of the trigeminal nerve**
- d. Mandibular branch of the trigeminal nerve
- e. Chorda tympani branching from the facial nerve

368. A patient with periodontitis of the lower molar came to the doctor. It was determined that the inflammatory process spread to the lymph nodes. What lymph nodes were the first to be affected by the inflammatory process?

- a. Submental
- b. Facial
- c. Lateral cervical
- d. Anterior cervical

e. Submandibular

369. After an X-ray examination of the tuberculosis clinic patient, he was diagnosed with tumor of the right lung. During operation the surgeon removed the middle lobe of the patient's right lung. This lobe includes:

a. Segmentum laterale et segmentum mediale

- b. Segmentum anterius et segmentum apicale
- c. Segmentum apicale (superius) et segmentum basale mediale
- d. Segmentum lingualare superius et inferius
- e. Segmentum basale anterius et posterius

370. A 30-year-old man with an incised wound on the plantar surface of the left foot was brought to the traumatology department. Lifting of the lateral side of the foot is limited. What muscle is likely to be functionally disturbed?

- a. Triceps muscle of calf
- b. Soleus muscle
- c. Anterior tibial muscle
- d. Flexor hallucis longus muscle

e. Peroneus longus muscle

371. An ovarian tumor was detected in a woman. She is prescribed a surgery. What ligament should be severed by the surgeon to separate the patient's ovary from the uterus?

- a. Broad ligament of the uterus
- b. Suspensory ligament of the ovary
- c. Round ligament of the uterus

d. Proper ovarian ligament

e. Lateral umbilical ligament

372. A 45-year-old woman presents with breast cancer. Metastases can spread in this case to the following regional lymph nodes:

a. Aortic, bronchomediastinal

b. Axillary, parasternal

- c. Cervical, parasternal
- d. Abdominal, cervical
- e. Parasternal, bronchomediastinal

373. A 35-year-old man with a hand injury came to the traumatology department. Examination revealed an incised wound on the palmar surface of the left hand; middle phalanges of digits II-IV cannot be flexed. What muscles are damaged?

a. Dorsal interossei

b. Flexor digitorum superficialis

- c. Lumbrical muscles
- d. Flexor digitorum profundus
- e. Palmar interossei

374. Clinical course of urolithiasis was complicated by the passage of a renal calculus. Where in the ureter is it most likely to stop?

a. At the border between the abdominal and pelvic segments

- b. In the middle of the abdominal segment
- c. 5 cm above the pelvic segment
- d. 2 cm above the entrance to the urinary bladder
- e. In the renal pelvis

375. The surgeon noticed aggregated lymphoid nodules (Peyer's patches) on the intestinal mucosa.

What portion of the intestine is it?

- a. Ileum
- b. Cecum
- c. Rectum
- d. Duodenum
- e. Jejunum

376. An oncology patient is to undergo a surgery on the descending colon. Name the main source of blood supply to this organ:

- a. Celiac trunk
- b. Superior mesenteric artery
- c. Inferior mesenteric artery
- d. Middle colic artery
- e. Splenic artery

377. A patient presents with an inner ear inflammation. On examination the doctor states that the 1st neurons of the auditory analyzer are affected. Where are these neurons located?

- a. G. trigeminale
- b. G. ciliare
- c. G. vestibulare
- d. G. geniculi
- e. G. spirale

378. A victim has received a deep incised stab wound to the upper posterior surface of the shoulder. Extension of elbow, hand, and digits is impaired; skin sensitivity of the posterior surface of the shoulder and forearm is lost. What nerve is damaged in this case?

- a. N. cutaneus brachii medialis
- b. N. ulnaris
- c. N. radialis
- d. N. medianus
- e. N. musculocutaneus

379. During an invasive operation the surgeon needs to access the omental bursa of the peritoneal cavity via the omental foramen (foramen of Winslow). What anatomical structure makes up the anterior border of this foramen?

- a. Greater omentum
- b. Hepatoduodenal ligament
- c. Visceral surface of liver
- d. Hepatorenal ligament
- e. Superior part of duodenum