1. Heterozygous parents with A(II) and B(III) blood group according to the AB0 system have got a child. What is the probability that the child has 0(I) blood group?

a. 0%
b. 25%
c. 75%
d. 100%
e. 50%

2. A 50 year old woman had her tooth extracted. The tissue regenerated. Which of the following organella are the most active during tissue regeneration?

a. Ribosomes
b. Postlysosomes
c. Lysosomes
d. Agranular endoplasmic reticulum
e. Centrosomes

3. Among students of the same group there are representatives of different races. One of the students has straight black hair and a fold of skin extending over the superior eyelid - epicanthus. What race does this student most probably represent?

a. Caucasian
b. Negroi
c. Mongoloid
d. Australoid
e. Ethiopian

4. A 16 y.o. girl consulted a dentist about dark colour of tooth enamel. Analysis of her pedigree revealed that this pathology was inherited by all girls from father and by 50% of boys from mother. What mode of inheritance are these pecularities typical for?

a. Autosomal and dominant
b. Autosomal and recessive
c. Recessive, X-linked
d. Recessive, Y-linked
e. Dominant, X-linked

5. Analysis of an electron diffraction pattern of a cell revealed mitochondrion destruction. This might result in abnormal course of the following cell process:

a. Cleavage
b. -
c. Nuclear division
d. Crossingover
e. Oxidation of organic substances

6. Formation of ribosome subunits in a cell was disturbed in course of an experiment (by means of activated mutagenic factors). This will have an effect on the following metabolic process:

a. Carbohydrate biosynthesis
b. Photosynthesis
c. Biological oxidation
d. Protein biosynthesis
e. ATP synthesis

7. A patient has a skin defect as a result of an extensive burn. In order to mask this defect the surgeons transplanted a skin flap from other body part of this patient. What type of transplantation is it?

a. Homotransplantation
b. Autotransplantation
c. Allotransplantation
d. Explantation
e. Xenotransplantation

8. It is known that information about sequence of amino acids in a protein molecule is encoded as a sequence of four types of nucleotides in a DNA molecule, and different amino acids are encoded by different number of triplets - from one to six. Such peculiarity of the genetic code is called:

a. Nonoverlapping
b. Universality
c. Degeneracy
d. Triplety
e. Specificity

9. A 9 y.o. boy was admitted to the endocrinological department. This boy has already had several fractures of hist extremities due to bone brittlness. The function of the following endocrinal glands (gland) is disturbed:

a. Thyroid
b. Adrenal
c. Epiphysis
d. Parathyroid
e. Thymus

10. A patient suffering from caries of the left inferior premolar has got a swelling on his neck above the hyoid bone. There appeared fever, salivary discharge, contraction of masticatory muscles, difficult mouth opening. The patient was diagnosed with phlegmon of mouth floor. What muscles will be involved in the process?

a. Digastric and stylohyoid
b. Platysma and stylohyoid
c. Thyrohyoid and sternohyoid
d. Mylohyoid and geniohyoid
e. Hyoglossal and styloglossal

11. Vishnevskys technique of vagosympathetic blockade lies in introduction of novocaine solution along the posterior edge of sternocleidomastoid muscle above its intersection with exterior jugular vein. Within which triangle of neck is it performed?

a. Pirogovs triangle
b. Submandibular
c. Clavicular-scapular
d. Carotic
e. Scapular-trapezoid

12. Vagosympathetic Vishnevskys block involves introduction of novocaine along the posterior edge of sternocleidomastoid muscle above its intersection with exterior jugular vein. The block is performed within the following triangle of neck:

a. Submandibular
b. Omotrapezoid
c. Carotid
d. Omoclavicular
e. Pirogoffs

13. During approach to the thyroid gland by means of transverse section suprasternal cellular tissue space should be opened. It will be dangerous to damage the following anatomic formation located within this space:

a. Lymph nodes
b. Subclavicular artery
c. Internal jugular vein
d. Venous jugular arch
e. Carotid artery

14. Examination of a patients oral cavity revealed contacting cutting edges of his superior and inferior incisors. Such tooth position is typical for the following occlusion:

a. Biprognathic occlusion

b. Orthognathia
c. Direct occlusion
d. Closed occlusion
e. Prognathism

15. A patient has myocardial infarction in the region of the frontal wall of the left ventricle. Circulatory dysfunction occurred in the following vascular basin:
a. Frontal interventricular branch of the left coronary artery
b. Circumflex branch of the left coronary artery
c. Atrioventricular branch of the left coronary artery
d. Marginal branch of the left coronary artery
e. Frontal ventricular branch of the right coronary artery

16. A female patient with pyelonephritis was admitted to the urological department. Examination revealed an associated infection accompanied by pyelovenous reflux. This complication was induced by affection of the following structure:
a. Straight tubules
b. Excretory renal tracts
c. Fornical renal apparatus
d. Renal tubules
e. Renal corpuscle

17. A 27 year old patient consulted a doctor about a solid tumour in front of the antilobium. During removal of this tumour a dental surgeon revealed a vein. What vein is localized in this area?
a. V. jugularis externa
b. V. auricularis posterior
c. V. facialis
d. V. jugularis interna
e. V. retromandibularis

18. A 24 year old patient consulted a doctor about pain below his lower jaw on the right. Dental surgeon revealed a concrement in the submandibular gland. During its removal he had to prevent bleeding out of the following artery:
a. A. facialis
b. A. alveolaris inferior
c. A. lingualis
d. A. labialis inferior
e. A. submentalis

19. As a result of a trauma a patient is unable to extend his cubital articulation. This may be caused by dysfunction of the following muscle:
a. Musculus teres major
b. Musculus subscapularis
c. Musculus infraspinatus
d. Musculus levator scapule
e. Musculus triceps brachii

20. What artery may be damaged during the conduction anesthetization in the region of the mandibular foramen?
a. Inferior alveolar artery
b. Lingual artery
c. Median meningeal artery
d. Pterygoid branches
e. Buccal artery

21. A 65-year-old male patient complains about being unable to move his lower jaw in backward direction. It was revealed that after a fall the following muscle was damaged:
a. Lateral pterygopalatine

b. Masticatory
c. Temporal
d. Medial pterygopalatine
e. Digastric

22. As a result of a cold a patient has the abnormal pain and temperature sensitivity of the frontal ? of his tongue. Which nerve must be damaged?
a. Accessory
b. Sublingual
c. Trigeminus
d. Vagus
e. Glossopharyngeal

23. Study of a patients facial gesture revealed that he couldnt whistle, round his lips; mouth corners didnt rise during laughing, oral fissure stretched sidewards (transversal smile). These symptoms indicate the atrophy of the following muscle:
a. Greater zygomatic muscle
b. Risorius muscle
c. Masticatory muscle
d. Orbicular muscle of mouth
e. Cervical muscle

24. A 28 y.o. patient was diagnosed with acute inflammation of mucous membrane of nasolacrimal duct. It is known from his anamnesis that he was having nasal discharges for 10 days after he had recovered from flu. From which part of nasal cavity could the infection have penetrated into the nasolacrimal duct?
a. Inferior nasal meatus
b. Superior nasal meatus
c. Frontal sinus
d. Vestibule of nose
e. Medial nasal meatus

25. A doctor examined a victim of a road accident and revealed damage of the exterior wall of eye socket. The patient has lost ability to abduct the eyeball on the affected side. What nerve might be damaged in this case?
a. N. ophthalmicus
b. infraorbitalis
c. N. trochlearis
d. N. oculomotorius
e. N. abducens

26. A patient has torticollis. Which neck muscle is damaged?
a. M.sternohyoideus
b. M.mylohyoideus
c. M.omohyoideus
d. M.platisma
e. M.sternocleidomastoideus

27. A patient has a right-sided fracture and a hemorrhage (haematoma) in the area of anterior third of his lower jaw, loss of skin sensitivity in the area of his chin. What nerve was damaged?
a. Inverior alveolar nerve
b. Mylohyoid nerves
c. Mental nerve
d. Buccal nerve
e. Superior alveolar nerves

28. After extraction of the II maxillary molar tooth the patient has got haemorrhage from the alveolar socket. The observed haemorrhage is from the system of the following artery:

a. Ascending pharyngeal
b. Mylohyoid
c. Inferior alveolar
d. Facial
e. Maxillary

29. During lancing of deep abscess of a cheek a vertical section was performed. It resulted in paresis (dysfunction) of muscles on the side of operation. There were cut the branches of the following nerve:
a. Facial
b. Mandibular
c. Sublingual
d. Vagus
e. Maxillary

30. Examination of a patient who complains of deglutitive problem revealed a tumour-like eminence 1-2 cm in diameter on the tongue root in the region of the cecal foramen. These are overgrown remnants of the following gland:
a. Adenohypophysis
b. Parathyroid
c. Thyroid
d. Thymus
e. Sublingual

31. A patient has a trauma of his upper jaw with an injury of supraorbital foramen. What jaw surface was damaged?
a. Anterior
b. Orbital
c. -
d. Subtemporal
e. Nasal

32. A patient complains about having pain during mastication, especially when he moves his jaw forward or sideward. What muscles are damaged?
a. Medial pterygoid
b. Mylohyoid
c. Temporal
d. Lateral pterygoid
e. Masticatory

33. While operating on a tumour of abdominal part of ureter a doctor should be aware of an important arterial vessel located in front of it. Which vessel is it?
a. A.ileocolica
b. A.renalis
c. A.testicularis
d. A.iliaca interna
e. A.iliaca communis

34. A surgeon is going to take lymph from a patients thoracic duct, from where it flows into the venous stream. Where should he insert a catheter into?
a. Site of postcava origination
b. Right venous angle
c. Left venous angle
d. Site of precava origination
e. Site of portal vein origination

35. After a patient recovered from a cold he got disturbed lacrimation. What vegetative ganglion was damaged most of all?
a. Submandibular

b. Sublingual
c. Aural
d. Ciliated
e. Pterygopalatine

36. A patient has a disturbed function of masticatory muscles. What nerve is damaged?
a. Buccal
b. Maxillary
c. Lingual
d. Auriculotemporal
e. Mandibular

37. A basketball player complains of pain over his heel that is getting stronger during walking. It might be caused by damage of tendon of the following muscle:
a. m. triceps surae
b. m. flexor digitorum longus
c. m. fibularis brevis
d. m. fibularis longus
e. m. tibialis posterior

38. As a result of road accident a driver got multiple injuries of lateral surface of his head including the malar arch fracture. What muscles function will be damaged?
a. emphM. orbicularis oris
b. emphM. procerus
c. emphM. risorius
d. emphM. masseter
e. emphM. buccinator

39. A boy has fallen down from the tree. Now he finds it difficult to abduct his arm till it takes horizontal position. Which muscle is most probably injured?
a. M.triceps brachii
b. M.coracobrachialis
c. M.supinator
d. M.deltoideus
e. M.anconeus

40. A patient had a trauma that resulted in a fracture in the external inferior third of his right crus. What bone was broken?
a. Fibular
b. Femoral
c. Calcaneal
d. Astragaloid
e. Tibial

41. A student has accidentally hit his elbow against the edge of the table and sensed burning and tingling on the interior surface of his forearm. What nerve was damaged in this case?
a. N. musculocutaneus
b. N. ulnaris
c. N. medianus
d. N. radialis
e. N. axillaris

42. During an operation on a woman it became necessary to ligate her uterine artery. What formation can be accidentally ligated together with this artery?
a. Uterine tube
b. Internal iliac vein
c. Urethra
d. Ureter

e. Round ligament of uterus

43. Heart auscultation revealed diastolic murmur in the II intercostal space along the right parasternal line. This is the evidence of the following valve pathology:

a. Bicuspid
b. Valve of pulmonary trunk
c. -
d. Aortic valve
e. Tricuspid

44. 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 hepaticus communis
b. Ductus cysticus
c. Ductus choledochus
d. Ductus hepaticus dexter
e. Ductus hepaticus sinister

45. Examination of a patient who was exposed to the ionizing radiation revealed damage of wight pulp. What cells of white pulp undergo pathological changes?

a. Basophilic leukocytes
b. Neutrophilic leukocytes
c. Lymphocytes
d. Monocytes
e. Tissue basophils

46. Before teeth come out first on their roots appears a solid tissue that looks like membrane reticulated bone. What tissue is it?

a. Dentin
b. Loose fibrous connective tissue
c. Dense fibrous connective tissue
d. Cement
e. Enamel

47. A patient had a trauma that led to the injury of front spinal roots. Denote the damaged structures:

a. Axons of motoneurons
b. Axons of motoneurons and lateral horn neurons
c. Peripheral processes of spinal ganglion neurons
d. Central processes of spinal ganglion neurons
e. Axons of lateral horn neurons

48. As a result of punctate retinal hemorrhage a patient lost ability to see objects in the centre of visual field. In what part of retina did the hemorrhage take place?

a. Iris
b. Ciliary part of retina
c. Yellow spot
d. Blind spot
e. Vascular membrane

49. The regeneration process of damaged skeletal muscles is very slow. What elements of musculoskeletal fiber take part in the process of regeneration?

a. Myosatellitocytes
b. Smooth myocytes
c. Myoepithelial cells
d. Myofibroblasts
e. Myoblasts

50. A 46 year old patient was admitted to the hematological department. It was found that he had disorder of granulocytopoesis and thrombocytogenesis processes. In what organ does this

pathological process take pace?

a. Spleen
b. Thymus
c. Red bone marrow
d. Lymphatic ganglion
e. Palatine tonsil

51. A histological specimen presenting a tooth slice shows that the intercellular dentin substance contains collagen fibers being tangential to the dentinoenamel junction and perpendicular to the dentinal tubules (Ebners fibers). This dentin layer is called:

a. Granular layer
b. Mantle dentin
c. Parapulpar dentin
d. Interglobular dentin
e. Secondary dentin

52. A patient with an acute rhinitis has hyperemia and excessive mucus formation in nasal cavity. What epithelial cells of mucous membrane have the intensified activity?

a. Basal cells
b. Endocrine cells
c. Ciliated cells
d. Microvillous cells
e. Goblet cells

53. In course of an experiment the blood pressure of an animal had a stable rise by means of renal artery constriction. Hyperfunctioning of what renal cells cause this effect?

a. Thick spot cells
b. Juxtaglomerular cells
c. Endotheliocytes
d. Podocytes
e. Interstitial cells

54. As a result of head trauma a 32 year old man has damaged ampullas of semicircular ducts. What stimuli perception will be disturbed?

a. Linear acceleration
b. Vibration and gravitation
c. Vibration
d. Gravitation
e. Angular acceleration

55. Morphological examination revealed in histological specimen of biopsy material an irregular-shaped vessel. Its middle membrane is formed by bundles of smooth myocytes and layers of connective tissue. What type of vessel is it?

a. Arteriole
b. Vein of muscular type
c. Lymphatic vessel
d. Artery uf muscular type
e. Venule

56. The symptoms of regeneration process (callus) on the place of fracture were revealed in the histologic specimen of tubular bone. What tissue forms this structure?

a. Reticular tissue
b. Loose connective tissue
c. Fibrous bone tissue
d. Epithelial tissue
e. Lamellar bone tissue

57. Examination of a histological specimen of tubular bone revealed signs of regeneration process

(callus). What tissue is this structured formed of?
a. Lamellar osseous
b. Rough fibrous osseous
c. Reticular
d. Loose connective
e. Epithelial

58. Medullary substance of a hemopoietic organs lobule in a histological specimen is lighter coloured and contains epithelial bodies. What organ are these morphological preperties typical for?
a. Kidney
b. Thymus
c. Spleen
d. Lymph node
e. Liver

59. Premature infants have syndrom of respiratory failure. Failure of what aerohematic barriere component underlies this pathology?
a. Capillary endothelium
b. Basal membrane of alveolocytes
c. Alveolocytes
d. Surfactant
e. Basal membrane of endothelium

60. Blood analysis of a 16-year-old girl suffering from the autoimmune inflammation of thyroid gland revealed multiple plasmatic cells. Such increase in plasmocyte number is caused by proliferation and differentiation of the following blood cells:
a. Tissue basophils
b. T-helpers
c. B-lymphocytes
d. T-killers
e. T-supressors

61. In a histological specimen the gland adenomeres should be determined. They are formed by the cells with central round nucleus and basophilic cytoplasma. Determine the type of adenomeres:
a. Seromucous
b. Serous
c. Combined
d. Mucous
e. Sebaceous

62. A patient underwent gastroscopy that revealed insufficient amount of mucus covering the mucous membrane. This phenomenon is caused by the dysfunction of the following cells of stomach wall:
a. Endocrinocytes
b. Cells of prysmatic glandular epithelium
c. Principal exocrinocytes of gastric glands
d. Parietal cells of gastric glands
e. Cervical cells of gastric glands

63. Histological examination of trasverse enamel slice revealed linear banding in form of concentric circles that is pointing at an angle to the dentinoenamel junction. Name these structures:
a. Enamel spindles
b. Retsius lines
c. Enamel plates
d. Hunter-Schregers lines
e. Enamel fascicles

64. Microspecimen analysis of childs finger skin revealed that epidermis has signs of inadequate development. What embryonal leaf was damaged in the process of development?

a. Ectoderma
b. Entoderma
c. Ectomezenchyma
d. Mezenchyma
e. Mesoderma

65. In a specimen that was coloured by method of silver impregnation some piriform cells with 2-3 evident dendrites were found. What structure is being analysed?
a. Cerebellar cortex
b. Retina
c. Spinal ganglion
d. Cerebral cortex
e. Spiral organ of middle ear

66. During the experimental analysis of chondrohistogenesis a sclerotome was damaged. What cells will it make impossible to differentiate?
a. Smooth myocytes
b. Fibroblasts
c. Epidermocytes
d. Chondroblasts
e. Myoblasts

67. Microspecimen of a childs finger skin reveals subnormal development of epidermis. What embryonic leaf was damaged in course of development?
a. Mesoderm
b. Mesenchyma
c. Ectomesenchyma
d. Ectoderm
e. Entoderm

68. The deficit of vitamin A causes the disorder of twilight vision. What cells is the photoreceptor function typical for?
a. Ganglionic nerve cells
b. Rod neurosensory cells
c. Conic neurosensory cells
d. Horizontal neurocytes
e. Bipolar neurons

69. During the embryogenesis of oral cavity the development of dental enamel was disturbed. What source of dental development was damaged?
a. Epithelium
b. Mesoderma
c. Dental papilla
d. Dental saccule
e. Mesenchyma

70. During the tooth development the enamel organ has prismatic cells with hexagonal intersection; the nucleus is situated in the central part of the cell. What cells are meant?
a. Cambial cells
b. Exterior enameloblasts
c. Preenameloblasts
d. Enamel pulp cells
e. Preodontoblasts

71. A histological specimen of an oral cavity organ demonstrates that the organs anterior surface is lined with multilayer squamous nonkeratinous epithelium, and its posterior surface - with multiserial ciliated epithelium. What organ is it?
a. Soft palate

b. Hard palate
c. Cheek
d. Lip
e. Gingiva

72. In course of embryogenesis maxillary and mandibular processes grew together with a delay. What development anomalies should be expected in this case?
a. Cleft of superior lip
b. Macrostomia
c. Cleft palate
d. Microstomia
e. Gothic palate

73. It was revealed that a 42 y.o. patient suffering from paradontosis had roundish calcified formations 2-3 mm in diameter in the coronal pulp. Name these structures:
a. Interglobular spaces
b. Dead dentin
c. Intertubular dentin
d. Denticles
e. Sclerotic dentin

74. Electron micrograph of a kidney fragment presents an afferent arteriole with big cells under endothelium. These cells contain secretory granules. Name this type of cells:
a. Juxtaglomerular
b. Smooth muscular
c. Interstitial
d. Juxtavascular
e. Mesangial

75. A child damaged the lateral surface of his tongue. What lingual papillas are most likely to be damged?
a. Filiform
b. Fungiform
c. Conic
d. Vallate
e. Foliate

76. Obliterating atherosclerosis causes changes in the vessels of the lower extermities. A histological specimen of such a vessel evidently presents both internal and external elastic membranes, middle membrane contains a lot of myocytes. What vessel is affected in case of this disease?
a. Artery of muscular type
b. Artery of mixed type
c. Lymph node
d. Vein with strongly developed muscles
e. Artery of elastic type

77. By producing a number of hormones placenta plays a part of temporary endocrine gland. What hormone may be detected in womans blood on the third or the forth day after begin of implantation, that is used in medicine for early pregnancy detection?
a. Somatostatin
b. Vasopressin
c. Oxytocin
d. Chorionic gonadotropin
e. Progesterone

78. In a histological specimen of adrenal cortex there are petite polygonal cells that form roundish clusters and contain some lipidic inclusions. What part of adrenal is presented in this histological specimen?

a. -
b. Glomerular zone
c. Fasciolar zone
d. Intermedial zone
e. Reticular zone

79. A histological specimen of an eyeball shows a structure in form of a convexoconvex formation connected with the ciliary body by the fibers of ciliary zonule and covered with a transparent capsule. Specify this structure:
a. Cornea
b. Sclera
c. Vitreous body
d. Ciliary body
e. Crystalline lens

80. Implantation process has two stages: adhesion and invasion. Morphological manifestation of blastocyte adhesion is:
a. Attachment of blastocyte to the endometrium
b. Destruction of connective tissue of endometrium
c. Formation of lacunes
d. Destruction of endometrium vessels
e. Destruction of endometrium epithelium

81. What factor may cause increase of power inputs of human organism by 100%?
a. Consumption of carbohydrate food
b. Consumption of fatty food
c. Rise of external temperature
d. Consumption of protein food
e. Drop of external temperature

82. A 40 year old European works in a Southeast Asian country. He complains that it is hard to bear high temperature under conditions of high relative humidity. The reason for it is difficult heat emission by way of:
a. Heat conduction
b. Radiation
c. Evaporation
d. Convection
e. Convection and heat conduction

83. After destruction of CNS structure an animal lost its orientative reflexes. What exactly was destroyed?
a. Lateral vestibular nuclei
b. Red nuclei
c. Quadrigeminal plate
d. Black substance
e. Medial reticular nuclei

84. The impact of oxitocine on uterus wall helps to stop uterine bleeding after labor. What membrane of this oragan reacts on the effect of this hormone?
a. Parametrium
b. Submucous membrane
c. Endometrium
d. Perimetrium
e. Myometrium

85. A patient suffering from chronic renal insufficiency has got osteoporosis. Osteoporosis was caused by abnormal synthesis of the following regulator of mineral metabolism in kidneys:
a. Glutamate carboxylation

b. Cortisol hydroxylation
c. Proline hydroxylation
d. Lysine hydroxylation
e. 1,25(OH)_2 D3 formation

86. Parodontitis is treated with calcium preparations and a hormone that stimulates tooth mineralization and inhibits tissue resorption. What hormone is it?
a. Thyroxine
b. Calcitonin
c. Adrenalin
d. Parathormone
e. Aldosterone

87. 3 years ago a 52 y.o. man underwent an operation for stomach extraction. Results of blood analysis: erythrocytes - 2,0cdot1012/l, Hb- 85 g/l, colour index - 1,27. These changes were caused by disturbed assimilation of the folowing vitamin:
a. B12
b. C
c. A
d. P
e. D6

88. Patients suffering from relapsing typhus have fever that can be characterized by several days of high temperature alternating with periods of normal temperature. Such temperature curve is called:
a. Febris continua
b. Febris atypica
c. Febris hectica
d. Febris intermittens
e. Febris recurrens

89. An employee was working with radioactive substances and as a result of an incident he was irradiated with 4 Gy. He complains about headache, nausea, dizzyness. What changes of blood formula can be expected 10 hours after irradiation?
a. Lymphocytosis
b. Agranulocytosis
c. Neutropenia
d. Neutrophilic leukocytosis
e. Leukopenia

90. A patient ill with adenoma of glomerular zone of adrenal cortex (Conns disease) has arterial hypertension, convulsions, polyuria. What is the main factor in the pathogenesis of these disturbances?
a. Aldosterone hypersecretion
b. Catecholamines hypersecretion
c. Glycocorticoids hyposecretion
d. Glycocorticoids hypersecretion
e. Aldosterone hyposecretion

91. A 30 y.o. man was irradiated with approximately 3 Gy. What blood changes will be revealed 8 hours after exposure to radiation?
a. Anemia
b. Lymphopenia
c. Granulocytopenia
d. Leukopenia
e. Thrombocytopenia

92. Microscopic analysis of a specimen revealed an organ of nervous system that consists of pseudounipolar neurons covered with glial and connective tissue membranes. Determine this organ:

a. Spinal cord
b. Vegetative ganglion
c. Spinal ganglion
d. Cerebellum
e. Cortex of cerebrum

93. A 6 year old child was delivered to the hospital because of measles pneumonia. On the mucous membrane of a cheek a dentist revealed an ill-defined greish area 2x2,5 cm large. Soft tissues are edematic and foul-smelling. The most probable diagnosis of the dentist should be:
a. Gangrenous stomatitis
b. Phlegmonous stomatitis
c. Ulcerous stomatitis
d. Noma
e. Pustular stomatitis

94. Mucous membrane of a patients oral cavity has a greyish-white focus, the mass is dense and protrudes above the mucous membrane. Histological examination revealed hyperkeratosis, parakeratosis and acanthosis of epithelium in this area. What pathological process was revealed in the mucous membrane?
a. Leukoplakia
b. Leukoderm
c. Focal ichthyosis
d. Local tumourous amyloidosis
e. Hyalinosis

95. As a result of a trauma a patient has damaged frontal spinal roots. What structures are likely to be affected?
a. Axons of the lateral horn neurons
b. Dendrites of the spinal ganglion neurons
c. Central processes of the sensory neurons of the spinal ganglions
d. Peripheral processes of the sensory neurons of the spinal ganglions
e. Axons of the motoneurons and axons of the lateral horn neurons

96. A patient complains of headache, difficult respiration. Roentgenological examination allowed to confirm the following diagnosis: frontitis (frontal sinus inflammation). Which nasal meatus may contain purulent discharges?
a. Superior
b. Common
c. Above the superior nasal turbinate
d. Median
e. Inferior

97. A patient was delivered to the hospital with neck injury. Examination revealed a damaged nerve located in the front part of anterior scalene muscle. What nerve is damaged?
a. Vagus
b. Sublingual
c. Cervicl part of sympathetic trunk
d. Diaphragmatic
e. Glossopharyngeal

98. A patient with neck injury was admitted to the hospital. Examination revealed a damaged nerve located anteriad to the frontal scalene. What nerve is damaged?
a. Sublingual
b. Cervical part of sympathetic trunk
c. Vagus
d. Glossopharyngeal
e. Phrenic

99. After a road accident a driver has got deformity in the midle third of his left shin and intense pain, especially when he tries to move his left shin. The ends of a trihedral bone stick out of a wound, there is great blood loss. What bone might be damaged?

a. Patella
b. Astragalus
c. Fibula
d. Femur
e. Tibia

100. A histological specimen presents the tissue that contains cells having no processes and a few tens of nuclei each. One of cell surfaces has a corrugated zone that provides secretion of hydrolytic elements. What tissue is it?

a. Osseous tissue
b. Epithelial tissue
c. Muscular tissue
d. Nerve tissue
e. Cartilaginous tissue

101. A patient underwent Caesarean section. During the operation a long incision was made in the uterus wall and the fetus was extracted from uterus. Healing of the sutured myometrium will proceed in the following way:

a. Proliferation of myosatellitocytes
b. Hypertrophy of smooth myocytes
c. Formation of smooth muscular tissue
d. Formation of cross-striated muscle fibers
e. Formation of a fibrous cicatrix

102. Children often have laboured nasal breathing which is caused by overdevelopment of lymphoid tissue of the pharyngeal mucous membrane. This phenomenon may cause enlargement of the following tonsils:

a. emphTonsilla pharyngea
b. emphTonsilla lingualis
c. emphAll above-mentioned
d. emphTonsilla tubaria
e. emphTonsilla palatina

103. A patient consulted a doctor about high pain sensitivity of skin behind his auricle and external acoustic meatus. Palpation behind the sternocleidomastoid muscle is painful. It can be caused by irritation of the following nerve:

a. emphNn. supraclaviculares
b. emphN. vagus
c. emphN. transversus colli
d. emphN. occipitalis minor
e. emphN. auricularis magnus

104. Electron microscopic study of a cell revealed roundish bubbles confined by a membrane and containing a lot of various hydrolytic enzymes. It is known that these organellas provide intracellular digestion and protective functions. These elements are:

a. Mitochondria
b. Lysosomes
c. Endoplasmic reticulum
d. Centrosomes
e. Ribosomes

105. A 35 year old patient complains about permanent thirst, poor appetite. He drinks 9 l water per day. Daily diuresis is increased, urine is colourless, its relative density is 1,005. The most probable cause of this pathology development is damage of:

a. Epithelium of renal tubuli

b. Epiphysis
c. Basal membrane of glomerular capillaries
d. Hypothalamic nuclei
e. Adenohypophysis

106. A patient with disfunction of external respiration has to undergo tracheotomy. The isthmus of thyroid gland is commonly situated on a level with the following tracheal rings:
a. III-IV
b. IV-V
c. V-VI
d. II- IV
e. I-II

107. Pathological process of purulent barotitis involves an artery on the anterior wall of tympanic cavity. What artery is it?
a. A. carotis externa
b. A. auricularis posterior
c. A. temporalis superficialis
d. A. carotis interna
e. A. meningea media

108. A 38 year old patient complained that after acute respiratory viral disease she had lost sensation of food contact with the front ⅔ of her tongue as well as pain and temperature sensation (burned her tongue with hot tea). Which nerve and which branch of it was damaged?
a. Superior laryngeal nerve of vagus
b. Lingual nerve of mandibular branch of trigeminus
c. Lingual nerves of sublingual nerve
d. Lingual branches of glossopharyngeal nerve
e. Tympanichord of facial nerve

109. A 45-year-old patient was admitted to the resuscitation department with a laryngeal edema. During tracheotomy a surgeon accidentally cut across the jugular venous arch that lies within:
a. Spatium interscalenum
b. Spatium antescalenum
c. Spatium pretracheale
d. Spatium retropharyngeale
e. Spatium interaponeuroticum suprasternale

110. 30 minutes after a road accident a 35-year-old man was found to have a massive trauma of his lower extremities without significant external haemorrhage. The injured is in excited state. What is the leading component of traumatic shock pathogenesis that requires immediate correction?
a. Internal plasm loss
b. Internal haemorrhage
c. Pain
d. Intoxication
e. Internal organs dysfunction

111. Clinical examination of a female patient revealed reduction of basal metabolism by 40%, gain in body mass, drop of body temperature, face puffiness, sexual disfunctions, inertness and apathy, lowered intelligence. These symptoms are caused by dysfunction of the following endocrine gland:
a. Hypofunction of parathyroid glands
b. Epiphysis hypofunction
c. Hyperfunction of thyroid gland
d. Hypofunction of thyroid gland
e. Hypophysis hyperfunction

112. Examination of a patient with an interbrain injury revealed the hearing impairment. What structures must be damaged?

a. Frontal nuclei of hypothalamus
b. Medial nuclei of hypothalamus
c. Lateral geniculate bodies of thalamus
d. Intralaminar nuclei of hypothalamus
e. Medial geniculate bodies of thalamus

113. A microphotography represents a fragment of cortical substance of a kidney. This fragment contains thick spot cells and juxtaglomerular cells with big secretory granules. What kidney structure is represented?
a. Choroid glomus
b. Juxtaglomerular apparatus
c. Filtering barrier
d. Renal corpuscle
e. Prostaglandin apparatus

114. As a result of a chest trauma the costal cartilage was damaged. The cartilage regenerates due to the following layer of perichondrium:
a. Sharpeys fibers
b. Chondrogenic
c. Elastic
d. Fibrous
e. Collagen

115. A parient with hemorrhage from the lacerated wound in the angle of his mouth was delivered to the accident ward. What artery was injured?
a. Suborbital
b. Facial
c. Lingual
d. Maxillary
e. Anterior superalveolar

116. After a surgical procedure an experimental animal died from intense convulsions. What endocrinal glands were extracted?
a. Thyroid
b. Ovaries
c. Testicles
d. Parathyroid
e. Adrenal

117. A histological specimen of a mandibular gland shows an exctretory duct. Mucous membrane of the duct is lined with cubic epithelium whose cells have weakly developed organellas. What excretory duct is it?
a. Common excretory
b. -
c. Striated
d. Interlobular
e. Intercalated

118. A patient has applied eye drops containing atropine which resulted in persistent mydriasis. Which muscle was blocked?
a. Pupil-contracting
b. Ciliate
c. Oblique
d. Rectus
e. Pupil-dilating

119. Electron-microscope investigation of cortical substance of a kidney reveals some structures lined with prismatic epithelium that normally has brush border and deep plicae of plasmolemma in its basal

part. There is a big number of mitochondrions between these plicae. These structures belong to the following part of a nephron:

a. Henles loop
b. Distal convoluted tubule
c. Proximal tubule
d. Renal corpuscle
e. Distal straight tubule

120. Intralobular capillaries of a liver specimen have wide irregular lumen. Basal membrane is absent in the major part of the capillary. What type of capillaries is it?

a. Postcapillaries
b. Sinusoid
c. Somatic
d. Visceral
e. Precapillaries

121. It was revealed that a patient with coagulation failure has thrombosis of a branch of inferior mesenteric artery. What bowel segment is affected?

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

122. A patient was admitted to a hospital because of risk of inflammation spread from the occipital area to the cranial cavity. What anatomical formation can the inflammation spread through?

a. Spinous foramen
b. Oval foramen
c. Parietal foramen
d. Round foramen
e. Condylar canal

123. A patient ill with diabetes mellitus went through an operation on account of abscess in the area of posterior part of his neck. The wound healing lasted for a month and a half; the wound constantly discharged pus. On the site of the healed wound there appeared an irregular scar. In what way did the wound healing take place?

a. By secondary intention
b. By epithelization
c. By combined intention
d. By primary intention
e. Under the crust

124. A 35 year old man got a trauma that resulted in complete rupture of spinal cord at a level of the first cervical segment. What changes of respiration will be observed?

a. Respiration will become diaphragmatic
b. Respiration wont change
c. Respiration will come to a standstill
d. Respiration will become frequent and shallow
e. Respiration will become infrequent and deep

125. A patient with a craniocerebral trauma has respiratory standstill. What part of cerebrum is most likely to be damaged?

a. Cerebellum
b. Thalamencephalon
c. Telencephalon
d. Mesencephalon
e. Medulla oblongata

126. During an experiment the median part of an animals cochlea was damaged. This resulted in impaired perception of acoustic vibrations of the following frequency:

a. High
b. Low
c. Medium
d. High and medium
e. Low and medium

127. Examination of a patient, suffering from atrophic gastritis, revealed megaloblastic anemia. The anemia is likely to be caused by the deficiency of the following substance:

a. Erythropoietins
b. Gastromucoproteid
c. Vitamin B1
d. Vitamin B6
e. Iron

128. A microspecimen of parotid gland presents secretory acines with serous cells that synthesize mostly enzymes. According to the chemical composition classification, the parotid gland relates to the following glands:

a. Enzymatic
b. -
c. Mucous
d. Seromucous
e. Serous

129. A couple applied to a genetic consultation with a question about probability of giving birth to children with X-linked rachitis (dominant character). Father is healthy, mother is heterozygous and suffers from this disease. Vitamin-resistant rachitis can be inherited by:

a. A half of all daughters and sons
b. Sons only
c. All children will be healthy
d. All children
e. Daughters only

130. On examination a male patient was diagnosed with acute radiation dsease. Laboratory examination revealed abrupt decrease in serotonin found in blood platelets. A likely cause of decrease in serotonin concentration would be metabolic imbalance of the following substance:

a. Phenyl alanine
b. Serine
c. Tyrosine
d. Histidine
e. 5-oxytryptophane

131. A 40 year old female patient has enlarged thyroid gland. On palpation the gland is dense, its surface is slightly tuberous. Histological examination of gland sample revealed diffuse infiltration of tissue by the cells, formation of lymphoid follicles. What disease is it?

a. Autoimmune thyroiditis
b. Sporadic goiter
c. Riedels disease
d. Diffuse toxic goiter
e. Endemic goiter

132. A patient was delivered to a hospital after having been exposed to ionizing radiation. He presents with vomiting, anorexia, pain in different region of abdomen, bloody feces, elevation of body temperature, inertness. Such clinical presentations are typical for the following form of acute radiation disease:

a. Combined
b. Toxemic

c. Bone-marrow
d. Cerebral
e. Intestinal

133. A patient underwent partial removal of a structure of central nervous system by medical indications. This resulted in development of atony, astasia, intention tremor, ataxia, adiadochokinesis. What structure of CNS was partially removed?
a. Hippocampus
b. Amygdaloid complex
c. Cerebellum
d. Basal ganglions
e. Motor cortex

134. During examination of a childs oral cavity a pediatrician found 8 incisors. The childs development corresponds to his age. How old is the child?
a. 16-20 months
b. 10-12 months
c. 7-8 months
d. 6-7 months
e. 12-15 months

135. A patient has arterial hemorrhage from the cut wound in the area of anterior part of mastication muscle. What vessel should be ligated?
a. Aa. labiales inferiores
b. A. maxillaris
c. A. facialis
d. A. mentalis
e. A. lingualis

136. Microscopic examination of a parenchymatous organ revealed that its epithelial cords formed glomerular, fascicular and reticular zones. The central part of the organ was presented by accumulations of chromaffin cells. Specify this organ:
a. Thyroid gland
b. Liver
c. Hypophysis
d. Adrenal gland
e. Epiphysis

137. A specimen of connective tissue of derma was stained with Sudan III and hematoxylin. There are clusters of big polygonal cells that turned orange. Their nuclei are flattened and located on periphery. What tissue is it?
a. Brown adipose
b. Hyaline cartilaginous
c. Lamellar osseous
d. White adipose
e. Reticular connective

138. For the purpose of anaesthetization a patient got injection of local anesthetic. A few minutes later the patient got dyspnea and tachycardia; he lost consciousness. What type of shock is it?
a. Traumatic
b. Burn
c. Cardiogenic
d. Haemorrhagic
e. Anaphylactic

139. A patient was admitted to a hospital because of a penetrating wound of mouth floor. Which muscle is injured?
a. Sternohyoid

b. Mylohyoid
c. Stylohyoid
d. Thyrohyoid
e. Omohyoid

140. A patient has dislocation of his mandible that caused impairment of salivation and gustatory sensitivity of anterior ? of his tongue. What nerve was damaged?
a. Sublingual nerve
b. Tympanichord
c. Lesser petrosal nerve
d. Greater petrosal nerve
e. Deep petrosal nerve

141. A patient was diagnosed with a radicular cyst that had invaded nasal cavity. What tooth is most probably affected?
a. First superior bicuspid
b. First superior molar
c. Superior canine
d. Superior lateral incisor
e. Superior medial incisor

142. A patient complains about pain in his upper jaw and toothache. Objectively: the patient feels pain when pressed in the region of the supraorbital foramen. What nerve is affected?
a. Trochlear nerve
b. Facial nerve
c. The first branch of trigeminus
d. The third branch of trigeminus
e. The second branch of trigeminus

143. Roentgenological examination of a patient revealed a deformity of the inferior wall of the right eye socket. What paranasal sinus was most probably damaged?
a. Sphenoidal sinus
b. Right ethmoidal labyrinth
c. Left ethmoidal labyrinth
d. Right maxillary sinus
e. Frontal sinus

144. Study of a tubular organ revealed that its median membrane consists of solid hyaline rings. What epithelium lines mucous membrane of this organ?
a. Monostratal prismatic glandular
b. Multistratal squamous nonkeratinizing
c. Monostratal cubical
d. Multinuclear prismatic ciliated
e. Monostratal prismatic with a border

145. A female patient was admitted to the hospital with pleuritis. Which area of pleural cavity contains most exudate?
a. Costomediastinal recess
b. Phrenicomediastinal recess
c. Costodiaphragmatic recess
d. Under the pleural cupula
e. Under the pulmonary radix

146. Examination of a microspecimen made of an unknown organ revealed some acini that contained 10-15 cone cells with basophilic cytoplasm, round nucleus and well developed granular endoplasmic reticulum. An acinus is surrounded by a basal membrane with myoepithelial cells localized in its splitting. What organ is the slice made of?
a. Liver

b. Parotid gland
c. Lungs
d. Pancreas
e. Sublingual gland

147. In course of an operation on account of a granuloma in the area of the right upper incisor a patient began to bleed. The hemorrhage was stopped just only 3 hours later. The patients anamnesis contains information about chronic lymphatic leukemia. What is the most probable cause of hemorrhage?
a. Thrombocytopathia
b. Leukopenia
c. Eosinophilia
d. Thrombocytopenia
e. Lymphocytosis

148. In order to anaesthetize superior incisors an anaesthetic should be injected in the region of the incisive foramen. What nerve is located in this place?
a. N.pharyngeus
b. Rr.nasales posteriores inferiores
c. Nn.palatini minores
d. N.nasopalatinus
e. N.palatinus major

149. Examination of nasal cavity revealed deviation of the posterior part of nasal septum. What bone is affected?
a. Lateral plate of pterygoid process
b. Medial plate of pterygoid process
c. Vomer
d. Perpendicular plate of ethmoid bone
e. Vertical plate of palatine bone

150. Examination of a tooth slice of a 42 y.o. man revealed on the dentinal-enamel border some solid linear fusiform structures as long as 1/3 of enamel depth. What structures were revealed?
a. Carious damage
b. Enamel spindles
c. Enamel fascicles
d. Denticles
e.

151. A dentist revealed a shallow cavity with damaged enamel between two central superior incisors. He diagnosed a patient with caries. On what surface of tooth crown will the dentist fill the tooth?
a. Facies labialis
b. Facies contactus distalis
c. Facies lingualis
d. Facies occlusialis
e. Facies contactus mesialis

152. There is a specimen of soft palate where both oral and nasal surfaces can be seen. It was revealed that oral cavity had damaged epithelium. What epithelium is damaged?
a. Multirowed ciliated epithelium
b. Multistratal squamous nonkeratinizing
c. Multistratal prismatic nonkeratinizing
d. Multistratal cubical nonkeratinizing
e. Multistratal squamous keratinizing

153. A male patient underwent an operation on account of inguinal hernia. During the operation a surgeon damaged content of the inguinal canal. What structure was damaged?
a. Funiculus spermaticus

b. Lig. teres uteri
c. -
d. Lig. inguinale
e. Urarchus

154. A patient with fracture of the greater wing of sphenoid bone was admitted to the craniocerebral department. The fracture line went through the spinous foramen. What vessel was damaged?
a. Superficial artery
b. Anterior deep temporal artery
c. Posterior deep temporal artery
d. Middle meningeal artery
e. Lateral pterygoid artery

155. During examination of a childs oral cavity a pediatrician established presence of inferior medial incisors. The childs development is normal. How old is the child?
a. 13-14 months
b. -
c. 8-9 months
d. 10-12 months
e. 6-7 months

156. As a result of a road accident a 26-year-old man is in the torpid phase of shock. Blood count: leukocytes - 3,2109l. What is the leading mechanism of leukopenia development?
a. Leukocyte destruction in the hematopietic organs
b. Increased excretion of the leukocytes from the organism
c. Leukopoiesis inhibition
d. Faulty release of mature leukocytes from the bone marrow into the blood
e. Leukocyte redistribution in the bloodstream

157. A histological specimen presents an organ that has both cortical and medullary substance. Cortical substance consists of an external zone that contains lymph nodules as well as of a paracortical zone. Medullary substance contains medullary cords, sinuses and trabecules. What organ possesses these morphological signs?
a. Spleen
b. Thymus
c. Adrenal glands
d. Lymph node
e. Kidney

158. A ventral root of spinal cord was damaged as a result of a trauma. The following processes of the following neurons were damaged:
a. Dendrites of sensory neurons
b. Dendrites of internuncial neurons
c. Dendrites of motor neurons
d. Axons of sensory neurons
e. Axons of motor neurons

159. A 5-month-old boy was hospitalized for tonic convulsions. He has a life-time history of this disease. Examination revealed coarse hair, thinned and fragile nails, pale and dry skin. In blood: calcium - 1,5 millimole/l, phosphor - 1,9 millimole/l. These changes are associated with:
a. Hypothyroidism
b. Hypoparathyroidism
c. Hyperaldosteronism
d. Hyperparathyroidism
e. Hypoaldosteronism

160. A patient with Itsenko-Cushing syndrome has persistent hyperglycemia and glycosuria, hypertension, osteoporosis, obesity. Increased synthesis and hypersecretion of the following hormone

will be observed in this case:

a. Aldosterone

b. Cortisol

c. Glucagon

d. Adrenaline

e. Thyroxin

161. A patient has myocardium infarction of the posterior wall of the right ventricle. What arterys branches are thrombosed?

a. Left and right coronary artery

b. Left coronary artery

c. Right coronary artery

d. Right subclavicular artery

e. Left subclavicular artery

162. After prophylactic medical examination a 7 y.o. boy was diagnosed with Lesch-Nyhan syndrome (only boys fall ill). His parents are healthy, but his grandfather by his mothers side has the same disease. What type of inheritance is it?

a. Autosomal and recessive

b. Dominant, sex-linked

c. Recessive, sex-linked

d. Autosomal and dominant

e. Semidominance

163. Endoscopic examination of duodenum revealed a tumour of the major papilla. This pathological formation is localized in the following part of duodenum:

a. Superior flexure

b. Descending part

c. Horizontal part

d. Superior part

e. Ascending part

164. Examination of mountain climbers who have spent a long time in a high-altitude region revealed increase of erythrocyte number (over 61012l) and haemoglobin concentration (over 170 g/l). What mechanism caused this phenomenon?

a. Intensified processes of anoxic energy production

b. Weakening of intracellular erythrocyte haemolysis

c. Weakening of erythrocyte haemolysis in bloodstream

d. Improved ability of tissue for oxygen utilization

e. Intensified production of erythropoietin by the kidneys

165. Examination of a 42-year-old patient suffering from paradontosis revealed some roundish calcified formations 2-3 mm in diameter in the coronal pulp. Name these structures:

a. Dead dentin

b. Denticles

c. Interglobular spaces

d. Interglobular dentin

e. Sclerotic dentin

166. During an operation on account of mandibular dislocation a doctor should consider effect of a certain muscle. Its posterior fascicles draw back protruding lower jaw. What muscle is meant?

a. M. mylohyoideus

b. M. temporalis

c. M. pterygoideus medialis

d. M. masseter

e. M. pterygoideus lateralis

167. Examination of a patient revealed change of secretory function of a parotid gland. It is

connected with disturbance of its vegetative innervation. What ganglion of vegetative nervous system gives postganglionic parasympathetic fibers for it?

a. Ganglion sublinguale
b. Ganglion oticum
c. Ganglion pterygopalatinum
d. Ganglion ciliare
e. Ganglion submandibulare

168. A patient has secretory dysfunction of the submandibular salivary galnd. Which nerve is responsible for its vegetative innervation?

a. N.auriculotemporalis
b. N.petrosus major
c. N.petrosus minor
d. Chorda tympani
e. N.mandibularis

169. A 35-year-old patient consulted a dentist about low density of dental tissues, increased fragility of teeth on eating solid food. In order to determine Ca/P relation a scrape of enamel was sent to the laboratory. What value of this index is suggestive of intensified demineralization?

a. 0,9
b. 1,85
c. 1,5
d. 2,5
e. 1,67

170. A patient underwent the extraction of his isuperior medial incisor. It is supplied with blood by the branches of the following artery:

a. A.sphenopalatina
b. A.alveolaris inferior
c. A.buccalis
d. A.palatina descendens
e. A.infraorbitalis

171. A patient underwent extraction of a tooth with oval crown and two tubercles on its masticatory surface. Its root is strongly flattened in mesiodistal direction, its apex is bifurcated. What tooth was extracted?

a. First inferior premolar
b. Second superior premolar
c. Second inferior premolar
d. First superior premolar
e. Canine

172. As a result of a trauma a patient has got disfunction of lachrymal gland. What nerve is responsible for its secretion?

a. Chorda tympany
b. N. petrosus minor
c. N. petrosus major
d. N. auricularis magnus
e. N. occipitalis minor

173. A 52 year old patient suffering from cancer of the lower jaw underwent a course of radiation therapy. The tumour has remitted. Which mechanism of cell destruction ensures efficiency of radiation therapy most of all?

a. Mutagenesis
b. Generation of free radicals
c. Lysis by natural killer cells
d. Hyperthermia
e. Vessel thrombosis

174. A doctor needs to anaesthetize the anterior part of mucous membrane of hard palate. What nerves should he block?

a. Inferior alveolar nerves
b. Pharyngeal nerves
c. Suborbital nerves
d. Nasopalatine nerves
e. Zygomatic nerves

175. A histological specimen presents a developed tooth that has a coating resistant to acids, but it can be found only on the lateral surfaces of the tooth. What coating is meant?

a. Cuticle
b. Enamel pellicle
c. Cement
d. Enamel
e. Dentine

176. A sensory nerve ganglion consists of roundish neurocytes with one process that divides into axon and dendrite at a certain distance from perikaryon. What are such cells called?

a. Multipolar
b. Apolar
c. Unipolar
d. Bipolar
e. Pseudounipolar

177. A patient with a tumour in the area of superior tubercles of quadrigeminal plate has lost pupillary reflex. This is most probably caused by dysfunction of the following nucleus of cranial nerves:

a. Motor nucleus of trochlear nerve
b. Motor nucleus of accessory nerve
c. Motor nucleus of oculomotor nerve
d. Motor nucleus of abducent nerve
e. Accessory nucleus of oculomotor nerve

178. Histological study of an extirpated pulp revealed some cylindrical cells in its peripheral layer. What are these cells called?

a. Monocytes
b. Fibroblasts
c. Odontoblasts
d. Ameloblasts
e. Myofibroblasts

179. During examination of a patient a dentist revealed carious cavities on the front teeth that dont have accessory antagonists. What teeth are meant?

a. Inferior lateral incisors
b. Superior medial incisors
c. Superior canines
d. Inferior medial incisors
e. Superior lateral incisors

180. Heterozygous parents with A(II) and B(III) blood group according to the AB0 system have got a child. What is the probability that the child has 0(I) blood group?

a. 25%
b. 75%
c. 0%
d. 50%
e. 100%

181. An electronic microphotograph shows a macrophagic cell with erythrocytes at different stages of differentiation located along its processes. This is the cell of the following organ:

a. Lymph node
b. Red bone marrow
c. Spleen
d. Thymus
e. Tonsil

182. Among students of the same group there are representatives of different races. One of the students has straight black hair and a fold of skin extending over the superior eyelid - epicanthus. What race does this student most probably represent?
a. Mongoloid
b. Caucasian
c. Ethiopian
d. Australoid
e. Negroi

183. Analysis of an electron diffraction pattern of a cell revealed mitochondrion destruction. This might result in abnormal course of the following cell process:
a. Crossingover
b. Nuclear division
c. Oxidation of organic substances
d. Cleavage
e. -

184. A patient has a skin defect as a result of an extensive burn. In order to mask this defect the surgeons transplanted a skin flap from other body part of this patient. What type of transplantation is it?
a. Explantation
b. Xenotransplantation
c. Homotransplantation
d. Autotransplantation
e. Allotransplantation

185. It is known that information about sequence of amino acids in a protein molecule is encoded as a sequence of four types of nucleotides in a DNA molecule, and different amino acids are encoded by different number of triplets - from one to six. Such peculiarity of the genetic code is called:
a. Degeneracy
b. Nonoverlapping
c. Specificity
d. Triplety
e. Universality

186. A patient suffering from caries of the left inferior premolar has got a swelling on his neck above the hyoid bone. There appeared fever, salivary discharge, contraction of masticatory muscles, difficult mouth opening. The patient was diagnosed with phlegmon of mouth floor. What muscles will be involved in the process?
a. Thyrohyoid and sternohyoid
b. Mylohyoid and geniohyoid
c. Hyoglossal and styloglossal
d. Digastric and stylohyoid
e. Platysma and stylohyoid

187. Vishnevskys technique of vagosympathetic blockade lies in introduction of novocaine solution along the posterior edge of sternocleidomastoid muscle above its intersection with exterior jugular vein. Within which triangle of neck is it performed?
a. Scapular-trapezoid
b. Carotic
c. Submandibular
d. Pirogovs triangle

e. Clavicular-scapular

188. Vagosympathetic Vishnevskys block involves introduction of novocaine along the posterior edge of sternocleidomastoideus muscle above its intersection with exterior jugular vein. The block is performed within the following triangle of neck:

a. Omoclavicular
b. Pirogoffs
c. Submandibular
d. Omotrapezoid
e. Carotid

189. During approach to the thyroid gland by means of transverse section suprasternal cellular tissue space should be opened. It will be dangerous to damage the following anatomic formation located within this space:

a. Subclavicular artery
b. Internal jugular vein
c. Lymph nodes
d. Carotid artery
e. Venous jugular arch

190. Examination of a patients oral cavity revealed contacting cutting edges of his superior and inferior incisors. Such tooth position is typical for the following occlusion:

a. Direct occlusion
b. Biprognathic occlusion
c. Prognathism
d. Closed occlusion
e. Orthognathia

191. A patient has myocardial infarction in the region of the frontal wall of the left ventricle. Circulatory dysfunction occurred in the following vascular basin:

a. Atrioventricular branch of the left coronary artery
b. Frontal interventricular branch of the left coronary artery
c. Circumflex branch of the left coronary artery
d. Frontal ventricular branch of the right coronary artery
e. Marginal branch of the left coronary artery

192. A female patient with pyelonephritis was admitted to the urological department. Examination revealed an associated infection accompanied by pyelovenous reflux. This complication was induced by affection of the following structure:

a. Renal tubules
b. Renal corpuscle
c. Excretory renal tracts
d. Straight tubules
e. Fornical renal apparatus

193. A 27 year old patient consulted a doctor about a solid tumour in front of the antilobium. During removal of this tumour a dental surgeon revealed a vein. What vein is localized in this area?

a. V. auricularis posterior
b. V. retromandibularis
c. V. jugularis interna
d. V. facialis
e. V. jugularis externa

194. A 24 year old patient consulted a doctor about pain below his lower jaw on the right. Dental surgeon revealed a concrement in the submandibular gland. During its removal he had to prevent bleeding out of the following artery:

a. A. lingualis
b. A. facialis

c. A. alveolaris inferior
d. A. submentalis
e. A. labialis inferior

195. What artery may be damaged during the conduction anesthetization in the region of the mandibular foramen?
a. Buccal artery
b. Pterygoid branches
c. Median meningeal artery
d. Inferior alveolar artery
e. Lingual artery

196. A 65-year-old male patient complains about being unable to move his lower jaw in backward direction. It was revealed that after a fall the following muscle was damaged:
a. Digastric
b. Temporal
c. Lateral pterygopalatine
d. Masticatory
e. Medial pterygopalatine

197. 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 be damaged?
a. Trigeminus
b. Accessory
c. Glossopharyngeal
d. Vagus
e. Sublingual

198. Study of a patients facial gesture revealed that he couldnt whistle, round his lips; mouth corners didnt rise during laughing, oral fissure stretched sidewards (transversal smile). These symptoms indicate the atrophy of the following muscle:
a. Cervical muscle
b. Greater zygomatic muscle
c. Orbicular muscle of mouth
d. Risorius muscle
e. Masticatory muscle

199. A doctor examined a victim of a road accident and revealed damage of the exterior wall of eye socket. The patient has lost ability to abduct the eyeball on the affected side. What nerve might be damaged in this case?
a. N. oculomotorius
b. N. trochlearis
c. N. abducens
d. N. ophthalmicus
e. N. infraorbitalis

200. A patient has torticollis. Which neck muscle is damaged?
a. M.mylohyoideus
b. M.sternocleidomastoideus
c. M.platisma
d. M.omohyoideus
e. M.sternohyoideus

201. A patient has a right-sided fracture and a hemorrhage (haematoma) in the area of anterior third of his lower jaw, loss of skin sensitivity in the area of his chin. What nerve was damaged?
a. Mylohyoid nerves
b. Buccal nerve
c. Superior alveolar nerves

d. Mental nerve
e. Inverior alveolar nerve

202. During lancing of deep abscess of a cheek a vertical section was performed. It resulted in paresis (dysfunction) of muscles on the side of operation. There were cut the branches of the following nerve:
a. Maxillary
b. Vagus
c. Sublingual
d. Facial
e. Mandibular

203. Examination of a patient who complains of deglutitive problem revealed a tumour-like eminence 1-2 cm in diameter on the tongue root in the region of the cecal foramen. These are overgrown remnants of the following gland:
a. Sublingual
b. Thyroid
c. Adenohypophysis
d. Parathyroid
e. Thymus

204. A patient has a trauma of his upper jaw with an injury of supraorbital foramen. What jaw surface was damaged?
a. Nasal
b. Subtemporal
c. -
d. Anterior
e. Orbital

205. A patient complains about having pain during mastication, especially when he moves his jaw forward or sideward. What muscles are damaged?
a. Mylohyoid
b. Temporal
c. Medial pterygoid
d. Masticatory
e. Lateral pterygoid

206. While operating on a tumour of abdominal part of ureter a doctor should be aware of an important arterial vessel located in front of it. Which vessel is it?
a. A.iliaca communis
b. A.testicularis
c. A.ileocolica
d. A.renalis
e. A.iliaca interna

207. A surgeon is going to take lymph from a patients thoracic duct, from where it flows into the venous stream. Where should he insert a catheter into?
a. Left venous angle
b. Site of postcava origination
c. Site of portal vein origination
d. Site of precava origination
e. Right venous angle

208. After a patient recovered from a cold he got disturbed lacrimation. What vegetative ganglion was damaged most of all?
a. Aural
b. Submandibular
c. Sublingual
d. Pterygopalatine

e. Ciliated

209. A patient has a disturbed function of masticatory muscles. What nerve is damaged?
a. Auriculotemporal
b. Lingual
c. Mandibular
d. Buccal
e. Maxillary

210. A basketball player complains of pain over his heel that is getting stronger during walking. It might be caused by damage of tendon of the following muscle:
a. M. triceps surae
b. M. flexor digitorum longus
c. M. fibularis brevis
d. M. fibularis longus
e. M. tibialis posterior

211. As a result of road accident a driver got multiple injuries of lateral surface of his head including the malar arch fracture. What muscles function will be damaged?
a. M. risorius
b. M. masseter
c. M. buccinator
d. M. orbicularis oris
e. M. procerus

212. A boy has fallen down from the tree. Now he finds it difficult to abduct his arm till it takes horizontal position. Which muscle is most probably injured?
a. M.coracobrachialis
b. M.supinator
c. M.triceps brachii
d. M.anconeus
e. M.deltoideus

213. A patient had a trauma that resulted in a fracture in the external inferior third of his right crus. What bone was broken?
a. Astragaloid
b. Calcaneal
c. Tibial
d. Femoral
e. Fibular

214. A student has accidentally hit his elbow against the edge of the table and sensed burning and tingling on the interior surface of his forearm. What nerve was damaged in this case?
a. N. radialis
b. N. axillaris
c. N. musculocutaneus
d. N. ulnaris
e. N. medianus

215. During an operation on a woman it became necessary to ligate her uterine artery. What formation can be accidentally ligated together with this artery?
a. Round ligament of uterus
b. Uterine tube
c. Ureter
d. Internal iliac vein
e. Urethra

216. Heart auscultation revealed diastolic murmur in the II intercostal space along the right parasternal line. This is the evidence of the following valve pathology:

a. Aortic valve
b. Tricuspid
c. -
d. Valve of pulmonary trunk
e. Bicuspid

217. 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 choledochus
b. Ductus hepaticus communis
c. Ductus hepaticus sinister
d. Ductus hepaticus dexter
e. Ductus cysticus

218. Examination of a patient who was exposed to the ionizing radiation revealed damage of wight pulp. What cells of white pulp undergo pathological changes?
a. Lymphocytes
b. Basophilic leukocytes
c. Tissue basophils
d. Monocytes
e. Neutrophilic leukocytes

219. Before teeth come out first on their roots appears a solid tissue that looks like membrane reticulated bone. What tissue is it?
a. Cement
b. Enamel
c. Dense fibrous connective tissue
d. Loose fibrous connective tissue
e. Dentin

220. A patient had a trauma that led to the injury of front spinal roots. Denote the damaged structures:
a. Axons of lateral horn neurons
b. Axons of motoneurons
c. Central processes of spinal ganglion neurons
d. Peripheral processes of spinal ganglion neurons
e. Axons of motoneurons and lateral horn neurons

221. As a result of punctate retinal hemorrhage a patient lost ability to see objects in the centre of visual field. In what part of retina did the hemorrhage take place?
a. Vascular membrane
b. Yellow spot
c. Iris
d. Ciliary part of retina
e. Blind spot

222. The regeneration process of damaged skeletal muscles is very slow. What elements of musculoskeletal fiber take part in the process of regeneration?
a. Myoblasts
b. Myofibroblasts
c. Myoepithelial cells
d. Myosatellitocytes
e. Smooth myocytes

223. A 46 year old patient was admitted to the hematological department. It was found that he had disorder of granulocytopoesis and thrombocytogenesis processes. In what organ does this pathological process take pace?
a. Thymus

b. Lymphatic ganglion
c. Palatine tonsil
d. Red bone marrow
e. Spleen

224. During gastrulation the Hensens node remained underdeveloped in the embryo. Which axial organ will slow down its development?
a. Neural tube
b. Mantle layer of the neural tube
c. Neural crests
d. Neural groove
e. Chord

225. In course of an experiment the blood pressure of an animal had a stable rise by means of renal artery constriction. Hyperfunctioning of what renal cells cause this effect?
a. Podocytes
b. Interstitial cells
c. Thick spot cells
d. Juxtaglomerular cells
e. Endotheliocytes

226. Morphological examination revealed in histological specimen of biopsy material an irregular-shaped vessel. Its middle membrane is formed by bundles of smooth myocytes and layers of connective tissue. What type of vessel is it?
a. Vein of muscular type
b. Lymphatic vessel
c. Arteriole
d. Venule
e. Artery of muscular type

227. The symptoms of regeneration process (callus) on the place of fracture were revealed in the histologic specimen of tubular bone. What tissue forms this structure?
a. Loose connective tissue
b. Epithelial tissue
c. Lamellar bone tissue
d. Fibrous bone tissue
e. Reticular tissue

228. Examination of a histological specimen of tubular bone revealed signs of regeneration process (callus). What tissue is this structured formed of?
a. Loose connective
b. Epithelial
c. Lamellar osseous
d. Rough fibrous osseous
e. Reticular

229. Medullary substance of a hemopoietic organs lobule in a histological specimen is lighter coloured and contains epithelial bodies. What organ are these morphological properties typical for?
a. Lymph node
b. Liver
c. Kidney
d. Thymus
e. Spleen

230. Premature infants have syndrom of respiratory failure. Failure of what aerohematic barriere component underlies this pathology?
a. Basal membrane of alveolocytes
b. Alveolocytes

c. Capillary endothelium
d. Basal membrane of endothelium
e. Surfactant

231. In a histological specimen the gland adenomeres should be determined. They are formed by the cells with central round nucleus and basophilic cytoplasma. Determine the type of adenomeres:
a. Combined
b. Mucous
c. Serous
d. Sebaceous
e. Seromucous

232. A patient underwent gastroscopy that revealed insufficient amount of mucus covering the mucous membrane. This phenomenon is caused by the dysfunction of the following cells of stomach wall:
a. Cervical cells of gastric glands
b. Endocrinocytes
c. Parietal cells of gastric glands
d. Principal exocrinocytes of gastric glands
e. Cells of prysmatic glandular epithelium

233. Histological examination of trasverse enamel slice revealed linear banding in form of concentric circles that is pointing at an angle to the dentinoenamel junction. Name these structures:
a. Enamel fascicles
b. Enamel spindles
c. Hunter-Schregers lines
d. Enamel plates
e. Retsius lines

234. In a specimen that was coloured by method of silver impregnation some piriform cells with 2-3 evident dendrites were found. What structure is being analysed?
a. Retina
b. Spiral organ of middle ear
c. Cerebellar cortex
d. Cerebral cortex
e. Spinal ganglion

235. During the experimental analysis of chondrohistogenesis a sclerotome was damaged. What cells will it make impossible to differentiate?
a. Myoblasts
b. Smooth myocytes
c. Chondroblasts
d. Fibroblasts
e. Epidermocytes

236. During the tooth development the enamel organ has prismatic cells with hexagonal intersection; the nucleus is situated in the central part of the cell. What cells are meant?
a. Enamel pulp cells
b. Preodontoblasts
c. Exterior enameloblasts
d. Cambial cells
e. Preenameloblasts

237. In course of embryogenesis maxillary and mandibular processes grew together with a delay. What development anomalies should be expected in this case?
a. Macrostomia
b. Cleft palate
c. Cleft of superior lip

d. Gothic palate
e. Microstomia

238. It was revealed that a 42 y.o. patient suffering from paradontosis had roundish calcified formations 2-3 mm in diameter in the coronal pulp. Name these structures:
a. Sclerotic dentin
b. Interglobular spaces
c. Denticles
d. Dead dentin
e. Intertubular dentin

239. At a certain stage of development of a human embryo one can observe formation of a cavity in its structure, small light blastomeres on the periphery and large dark blastomeres at one of the poles. The embryo at this stage of development is called:
a. Blastodisk
b. Blastocyst
c. Zygote
d. Morula
e. Gastrula

240. Electron micrograph of a kidney fragment presents an afferent arteriole with big cells under endothelium. These cells contain secretory granules. Name this type of cells:
a. Juxtavascular
b. Interstitial
c. Mesangial
d. Smooth muscular
e. Juxtaglomerular

241. A specimen of the pia mater shows a vessel with no middle membrane in its wall, its outer membrane adheres to the surrounding tissues, the inner membrane is made up of the basal membrane and endothelium. Specify this vessel:
a. Fibrous vein
b. Muscular artery
c. Mixed artery
d. Arteriola
e. Muscular vein with weakly developed muscular elements

242. For an unknown reason the fertilization membrane of an embryo dissolved in the fallopian tube in the first critical period. What complication of pregnancy is possible in this case?
a. Embryo implantation into the Fallopian tube
b. Invagination of the blastocyst wall
c. Formation of two blastocysts
d. Return of blastocyst back to the ampullary portion of the tube
e. Embryonic death

243. By producing a number of hormones placenta plays a part of temporary endocrine gland. What hormone may be detected in womans blood on the third or the forth day after begin of implantation, that is used in medicine for early pregnancy detection?
a. Chorionic gonadotropin
b. Progesterone
c. Oxytocin
d. Vasopressin
e. Somatostatin

244. A histological specimen of an eyeball shows a structure in form of a convex formation connected with the ciliary body by the fibers of ciliary zonule and covered with a transparent capsule. Specify this structure:
a. Sclera

b. Crystalline lens
c. Ciliary body
d. Vitreous body
e. Cornea

245. Implantation process has two stages: adhesion and invasion. Morphological manifestation of blastocyte adhesion is:
a. Destruction of connective tissue of endometrium
b. Destruction of endometrium epithelium
c. Attachment of blastocyte to the endometrium
d. Destruction of endometrium vessels
e. Formation of lacunes

246. What factor may cause increase of power inputs of human organism by 100%?
a. Consumption of fatty food
b. Drop of external temperature
c. Consumption of protein food
d. Rise of external temperature
e. Consumption of carbohydrate food

247. A 40 year old European works in a Southeast Asian country. He complains that it is hard to bear high temperature under conditions of high relative humidity. The reason for it is difficult heat emission by way of:
a. Convection and heat conduction
b. Evaporation
c. Heat conduction
d. Radiation
e. Convection

248. After destruction of CNS structure an animal lost its orientative reflexes. What exactly was destroyed?
a. Medial reticular nuclei
b. Quadrigeminal plate
c. Lateral vestibular nuclei
d. Red nuclei
e. Black substance

249. The impact of oxitocine on uterus wall helps to stop uterine bleeding after labor. What membrane of this organ reacts on the effect of this hormone?
a. Endometrium
b. Parametrium
c. Submucous membrane
d. Myometrium
e. Perimetrium

250. A patient suffering from chronic renal insufficiency has got osteoporosis. Osteoporosis was caused by abnormal synthesis of the following regulator of mineral metabolism in kidneys:
a. Lysine hydroxylation
b. Proline hydroxylation
c. 1,25(OH)2 D3 formation
d. Glutamate carboxylation
e. Cortisol hydroxylation

251. A histological specimen presents a receptor zone of a sensoepithelial sense organ. Cells of this zone are placed upon the basal membrane and include the following types: external and internal receptor cells, external and internal phalangeal cell, stem cells, external limiting cells and external supporting cell. The described receptor zone belongs to the following sense organ:
a. Gustatory organ

b. Visual organ
c. Acoustic organ
d. Equilibrium organ
e. Olfactory organ

252. Parodontitis is treated with calcium preparations and a hormone that stimulates tooth mineralization and inhibits tissue resorption. What hormone is it?
a. Aldosterone
b. Thyroxine
c. Parathormone
d. Adrenalin
e. Calcitonin

253. A patient was admitted to the hospital with an asphyxia attack provoked by a spasm of smooth muscles of the respiratory tracts. This attack was mainly caused by alterations in the following parts of the airways:
a. Small bronchi
b. Large bronchi
c. Respiratory part
d. Terminal bronchioles
e. Median bronchi

254. 3 years ago a 52 y.o. man underwent an operation for stomach extraction. Results of blood analysis: erythrocytes - 2,0x1012/l, Hb- 85 g/l, colour index - 1,27. These changes were caused by disturbed assimilation of the folowing vitamin:
a. P
b. A
c. B6
d. C
e. B12

255. Patients suffering from relapsing typhus have fever that can be characterized by several days of high temperature alternating with periods of normal temperature. Such temperature curve is called:
a. Febris intermittens
b. Febris hectica
c. Febris recurrens
d. Febris continua
e. Febris atypica

256. An employee was working with radioactive substances and as a result of an incident he was irradiated with 4 Gy. He complains about headache, nausea, dizzyness. What changes of blood formula can be expected 10 hours after irradiation?
a. Neutrophilic leukocytosis
b. Leukopenia
c. Neutropenia
d. Agranulocytosis
e. Lymphocytosis

257. A 30 y.o. man was irradiated with approximately 3 Gy. What blood changes will be revealed 8 hours after exposure to radiation?
a. Granulocytopenia
b. Leukopenia
c. Lymphopenia
d. Thrombocytopenia
e. Anemia

258. Microscopic analysis of a specimen revealed an organ of nervous system that consists of pseudounipolar neurons covered with glial and connective tissue membranes. Determine this organ:

a. Cortex of cerebrum
b. Spinal ganglion
c. Spinal cord
d. Vegetative ganglion
e. Cerebellum

259. A patient has been given high doses of hydrocortisone for a long time. This caused atrophy of one of the adrenal cortex zones. Which zone is it?
a. Glomerular and reticular
b. -
c. Glomerular
d. Reticular
e. Fascial

260. Mucous membrane of a patients oral cavity has a greyish-white focus, the mass is dense and protrudes above the mucous membrane. Histological examination revealed hyperkeratosis, parakeratosis and acanthosis of epithelium in this area. What pathological process was revealed in the mucous membrane?
a. Hyalinosis
b. Local tumourous amyloidosis
c. Focal ichthyosis
d. Leukoplakia
e. Leukoderm

261. In a histological specimen parenchyma of an organ is represented by lymphoid tissue that forms lymph nodes; the latter are arranged in a diffuse manner and enclose a central artery. What anatomic formation has such morphological structure?
a. Thymus
b. Red bone marrow
c. Tonsil
d. Lymph node
e. Spleen

262. A histological specimen of a kidney shows a part of the distal tubule going between the afferent and efferent arteriole. The cells building the tubule wall have dense nuclei; basal membrane is absent. Such structural formation is called:
a. Juxtavascular cells
b. -
c. Juxtaglomerular cells
d. Mesangial cells
e. Macula densa

263. A patient complains of headache, difficult respiration. Rhoentgenological examination allowed to confirm the following diagnosis: frontitis (frontal sinus inflammation). Which nasal meatus may contain purulent discharges?
a. Inferior
b. Superior
c. Median
d. Common
e. Above the superior nasal turbinate

264. A patient was delivered to the hospital with neck injury. Examination revealed a damaged nerve located in the front part of anterior scalene muscle. What nerve is damaged?
a. Sublingual
b. Cervicl part of sympathetic trunk
c. Vagus
d. Glossopharyngeal
e. Diaphragmatic

265. A patient with neck injury was admitted to the hospital. Examination revealed a damaged nerve located anteriad to the frontal scalene. What nerve is damaged?

a. Cervical part of sympathetic trunk

b. Phrenic

c. Glossopharyngeal

d. Vagus

e. Sublingual

266. After a road accident a driver has got deformity in the midle third of his left shin and intense pain, especially when he tries to move his left shin. The ends of a trihedral bone stick out of a wound, there is great blood loss. What bone might be damaged?

a. Tibia

b. Femur

c. Astragalus

d. Patella

e. Fibula

267. A histological specimen presents the tissue that contains cells having no processes and a few tens of nuclei each. One of cell surfaces has a corrugated zone that provides secretion of hydrolytic elements. What tissue is it?

a. Epithelial tissue

b. Cartilaginous tissue

c. Osseous tissue

d. Nerve tissue

e. Muscular tissue

268. A patient underwent Caesarean section. During the operation a long incision was made in the uterus wall and the fetus was extracted from uterus. Healing of the sutured myometrium will proceed in the following way:

a. Formation of smooth muscular tissue

b. Proliferation of myosatellitocytes

c. Hypertrophy of smooth myocytes

d. Formation of a fibrous cicatrix

e. Formation of cross-striated muscle fibers

269. A patient consulted a doctor about high pain sensitivity of skin behind his auricle and external acoustic meatus. Palpation behind the sternocleidomastoid muscle is painful. It can be caused by irritation of the following nerve:

a. N. transversus colli

b. Nn. supraclaviculares

c. N. vagus

d. N. auricularis magnus

e. N. occipitalis minor

270. A 35 year old patient complains about permanent thirst, poor appetite. He drinks 9 l water per day. Daily diuresis is increased, urine is colourless, its relative density is 1,005. The most probable cause of this pathology development is damege of:

a. Basal membrane of glomerular capillaries

b. Hypothalamic nuclei

c. Adenohypophysis

d. Epithelium of renal tubuli

e. Epiphysis

271. A patient with disfunction of external respiration has to undergo tracheotomy. The isthmus of thyroid gland is commonly situated on a level with the following tracheal rings:

a. I-II

b. III-IV

c. II- IV

d. IV-V
e. V-VI

272. Pathological process of purulent parotitis involves an artery on the anterior wall of tympanic cavity. What artery is it?
a. A. carotis externa
b. A. auricularis posterior
c. A. temporalis superficialis
d. A. carotis interna
e. A. meningea media

273. A histological specimen shows a blood vessel. Its inner coat is composed by endothelium, subendothelium and internal elastic membrane. The middle coat is enriched with smooth myocytes. Such morphological characteristics are typical for the following vessel:
a. Elastic-type artery
b. Non-muscular vein
c. Muscular-type vein
d. Muscular-type artery
e. Capillary

274. A 38 year old patient complained that after acute respiratory viral disease she had lost sensation of food contact with the front 2/3 of her tongue as well as pain and temperature sensation (burned her tongue with hot tea). Which nerve and which branch of it was damaged?
a. Lingual nerves of sublingual nerve
b. Lingual branches of glossopharyngeal nerve
c. Lingual nerve of mandibular branch of trigeminus
d. Tympanichord of facial nerve
e. Superior laryngeal nerve of vagus

275. A 45-year-old patient was admitted to the resuscitation department with a laryngeal edema. During tracheotomy a surgeon accidentally cut across the jugular venous arch that lies within:
a. Spatium pretracheale
b. Spatium interscalenum
c. Spatium antescalenum
d. Spatium interaponeuroticum suprasternale
e. Spatium retropharyngeale

276. 30 minutes after a road accident a 35-year-old man was found to have a massive trauma of his lower extremities without significant external haemorrhage. The injured is in excited state. What is the leading component of traumatic shock pathogenesis that requires immediate correction?
a. Internal haemorrhage
b. Intoxication
c. Internal organs dysfunction
d. Pain
e. Internal plasm loss

277. Calcification of the intercellular substance of bone tissue is accompanied by the deposition of hydroxyapatite crystals along the collagen fibers. This process requires the presence of alkaline phosphatase in the intercellular substance. What cell produces this enzyme?
a. Osteoblast
b. Osteoclast
c. Chondrocyte
d. Chondroblast
e. Osteocyte

278. Clinical examination of a female patient revealed reduction of basal metabolism by 40%, gain in body mass, drop of body temperature, face puffiness, sexual disfunctions, inertness and apathy, lowered intelligence. These symptoms are caused by dysfunction of the following endocrine gland:

a. Epiphysis hypofunction
b. Hyperfunction of thyroid gland
c. Hypofunction of parathyroid glands
d. Hypophysis hyperfunction
e. Hypofunction of thyroid gland

279. Examination of a patient with an interbrain injury revealed the hearing impairment. What structures must be damaged?
a. Intralaminar nuclei of hypothalamus
b. Lateral geniculate bodies of thalamus
c. Medial geniculate bodies of thalamus
d. Frontal nuclei of hypothalamus
e. Medial nuclei of hypothalamus

280. A microphotography represents a fragment of cortical substance of a kidney. This fragment contains thick spot cells and juxtaglomerular cells with big secretory granules. What kidney structure is represented?
a. Filtering barrier
b. Renal corpuscle
c. Juxtaglomerular apparatus
d. Prostaglandin apparatus
e. Choroid glomus

281. As a result of a chest trauma the costal cartilage was damaged. The cartilage regenerates due to the following layer of perichondrium:
a. Chondrogenic
b. Elastic
c. Sharpeys fibers
d. Collagen
e. Fibrous

282. A parient with hemorrhage from the lacerated wound in the angle of his mouth was delivered to the accident ward. What artery was injured?
a. Facial
b. Lingual
c. Suborbital
d. Anterior superalveolar
e. Maxillary

283. A histological specimen of a mandibular gland shows an exctretory duct. Mucous membrane of the duct is lined with cubic epithelium whose cells have weakly developed organellas. What excretory duct is it?
a. Intercalated
b. Interlobular
c. -
d. Common excretory
e. Striated

284. A patient has applied eye drops containing atropine which resulted in persistent mydriasis. Which muscle was blocked?
a. Ciliate
b. Pupil-dilating
c. Pupil-contracting
d. Rectus
e. Oblique

285. Electron-microscope investigation of cortical substance of a kidney reveals some structures lined with prismatic epithelium that normally has brush border and deep plicae of plasmolemma in its basal

part. There is a big number of mitochondrions between these plicae. These structures belong to the following part of a nephron:

a. Distal straight tubule
b. Proximal tubule
c. Henles loop
d. Distal convoluted tubule
e. Renal corpuscle

286. Intralobular capillaries of a liver specimen have wide irregular lumen. Basal membrane is absent in the major part of the capillary. What type of capillaries is it?

a. Precapillaries
b. Postcapillaries
c. Visceral
d. Somatic
e. Sinusoid

287. It was revealed that a patient with coagulation failure has thrombosis of a branch of inferior mesenteric artery. What bowel segment is affected?

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

288. A patient ill with diabetes mellitus went through an operation on account of abscess in the area of posterior part of his neck. The wound healing lasted for a month and a half; the wound constantly discharged pus. On the site of the healed wound there appeared an irregular scar. In what way did the wound healing take place?

a. By combined intention
b. By secondary intention
c. By epithelization
d. Under the crust
e. By primary intention

289. During an experiment the median part of an animals cochlea was damaged. This resulted in impaired perception of acoustic vibrations of the following frequency:

a. Low and medium
b. Medium
c. High
d. Low
e. High and medium

290. Examination of a patient, suffering from atrophic gastritis, revealed megaloblastic anemia. The anemia is likely to be caused by the deficiency of the following substance:

a. Vitamin B6
b. Iron
c. Erythropoietins
d. Gastromucoproteid
e. Vitamin B1

291. A microspecimen of parotid gland presents secretory acines with serous cells that synthesize mostly enzymes. According to the chemical composition classification, the parotid gland relates to the following glands:

a. Mucous
b. Enzymatic
c. -
d. Serous
e. Seromucous

292. A couple applied to a genetic consultation with a question about probability of giving birth to children with X-linked rachitis (dominant character). Father is healthy, mother is heterozygous and suffers from this disease. Vitamin-resistant rachitis can be inherited by:

a. All children will be healthy

b. A half of all daughters and sons

c. Sons only

d. Daughters only

e. All children

293. On examination a male patient was diagnosed with acute radiation disease. Laboratory examination revealed abrupt decrease in serotonin found in blood platelets. A likely cause of decrease in serotonin concentration would be metabolic imbalance of the following substance:

a. Tyrosine

b. Phenyl alanine

c. Serine

d. 5-oxytryptophane

e. Histidine

294. A 40 year old female patient has enlarged thyroid gland. On palpation the gland is dense, its surface is slightly tuberous. Histological examination of gland sample revealed diffuse infiltration of tissue by the cells, formation of lymphoid follicles. What disease is it?

a. Sporadic goiter

b. Endemic goiter

c. Autoimmune thyroiditis

d. Diffuse toxic goiter

e. Riedels disease

295. A patient was delivered to a hospital after having been exposed to ionizing radiation. He presents with vomiting, anorexia, pain in different region of abdomen, bloody feces, elevation of body temperature, inertness. Such clinical presentations are typical for the following form of acute radiation disease:

a. Intestinal

b. Cerebral

c. Toxemic

d. Combined

e. Bone-marrow

296. A patient underwent partial removal of a structure of central nervous system by medical indications. This resulted in development of atony, astasia, intention tremor, ataxia, adiadochokinesis. What structure of CNS was partially removed?

a. Amygdaloid complex

b. Basal ganglions

c. Motor cortex

d. Cerebellum

e. Hippocampus

297. During examination of a childs oral cavity a pediatrician found 8 incisors. The childs development corresponds to his age. How old is the child?

a. 12-15 months

b. 16-20 months

c. 6-7 months

d. 7-8 months

e. 10-12 months

298. A patient has arterial hemorrhage from the cut wound in the area of anterior part of mastication muscle. What vessel should be ligated?

a. A. facialis

b. Aa. labiales inferiores

c. A. lingualis
d. A. mentalis
e. A. maxillaris

299. Microscopic examination of a parenchymatous organ revealed that its epithelial cords formed glomerular, fascicular and reticular zones. The central part of the organ was presented by accumulations of chromaffin cells. Specify this organ:
a. Liver
b. Hypophysis
c. Thyroid gland
d. Epiphysis
e. Adrenal gland

300. A specimen of connective tissue of derma was stained with Sudan III and hematoxylin. There are clusters of big polygonal cells that turned orange. Their nuclei are flattened and located on periphery. What tissue is it?
a. White adipose
b. Reticular connective
c. Lamellar osseous
d. Hyaline cartilaginous
e. Brown adipose

301. For the purpose of anaesthetization a patient got injection of local anesthetic. A few minutes later the patient got dyspnea and tachycardia; he lost consciousness. What type of shock is it?
a. Cardiogenic
b. Traumatic
c. Burn
d. Anaphylactic
e. Haemorrhagic

302. A patient was admitted to a hospital because of a penetrating wound of mouth floor. Which muscle is injured?
a. Thyrohyoid
b. Omohyoid
c. Sternohyoid
d. Mylohyoid
e. Stylohyoid

303. A patient has dislocation of his mandible that caused impairment of salivation and gustatory sensitivity of anterior 2/3 of his tongue. What nerve was damaged?
a. Sublingual nerve
b. Tympanichord
c. Lesser petrosal nerve
d. Greater petrosal nerve
e. Deep petrosal nerve

304. A patient was diagnosed with a radicular cyst that had invaded nasal cavity. What tooth is most probably affected?
a. First superior molar
b. Superior medial incisor
c. Superior lateral incisor
d. Superior canine
e. First superior bicuspid

305. A patient complains about pain in his upper jaw and toothache. Objectively: the patient feels pain when pressed in the region of the supraorbital foramen. What nerve is affected?
a. The second branch of trigeminus
b. The third branch of trigeminus

c. Facial nerve
d. Trochlear nerve
e. The first branch of trigeminus

306. Roentgenological examination of a patient revealed a deformity of the inferior wall of the right eye socket. What paranasal sinus was most probably damaged?
a. Right ethmoidal labyrinth
b. Left ethmoidal labyrinth
c. Sphenoidal sinus
d. Frontal sinus
e. Right maxillary sinus

307. Study of a tubular organ revealed that its median membrane consists of solid hyaline rings. What epithelium lines mucous membrane of this organ?
a. Multistratal squamous nonkeratinizing
b. Monostratal cubical
c. Monostratal prismatic glandular
d. Monostratal prismatic with a border
e. Multinuclear prismatic ciliated

308. A female patient was admitted to the hospital with pleuritis. Which area of pleural cavity contains most exudate?
a. Phrenicomediastinal recess
b. Under the pleural cupula
c. Under the pulmonary radix
d. Costodiaphragmatic recess
e. Costomediastinal recess

309. Examination of a microspecimen made of an unknown organ revealed some acini that contained 10-15 cone cells with basophilic cytoplasm, round nucleus and well developed granular endoplasmic reticulum. An acinus is surrounded by a basal membrane with myoepithelial cells localized in its splitting. What organ is the slice made of?
a. Lungs
b. Pancreas
c. Parotid gland
d. Sublingual gland
e. Liver

310. In course of an operation on account of a granuloma in the area of the right upper incisor a patient began to bleed. The hemorrhage was stopped just only 3 hours later. The patients anamnesis contains information about chronic lymphatic leukemia. What is the most probable cause of hemorrhage?
a. Leukopenia
b. Eosinophilia
c. Thrombocytopathia
d. Lymphocytosis
e. Thrombocytopenia

311. In order to anaesthetize superior incisors an anaesthetic should be injected in the region of the incisive foramen. What nerve is located in this place?
a. N.nasopalatinus
b. N.palatinus major
c. Nn.palatini minores
d. Rr.nasales posteriores inferiores
e. N.pharyngeus

312. Examination of nasal cavity revealed deviation of the posterior part of nasal septum. What bone is affected?

a. Medial plate of pterygoid process
b. Perpendicular plate of ethmoid bone
c. Vertical plate of palatine bone
d. Vomer
e. Lateral plate of pterygoid process

313. Examination of a tooth slice of a 42 y.o. man revealed on the dentinal-enamel border some solid linear fusiform structures as long as 1/3 of enamel depth. What structures were revealed?
a.
b. Carious damage
c. Denticles
d. Enamel fascicles
e. Enamel spindles

314. There is a specimen of soft palate where both oral and nasal surfaces can be seen. It was revealed that oral cavity had damaged epithelium. What epithelium is damaged?
a. Multistratal cubical nonkeratinizing
b. Multistratal squamous keratinizing
c. Multirowed ciliated epithelium
d. Multistratal squamous nonkeratinizing
e. Multistratal prismatic nonkeratinizing

315. The aim of the morphological study was to investigate an endocrine gland with parenchyma consisting of epithelium and neural tissue. In the epithelial trabeculae the study revealed two types of cells: chromophile and chromophobe. Identify this organ:
a. Parathyroid gland
b. Pituitary gland
c. Hypothalamus
d. Adrenal gland
e. Thyroid gland

316. A male patient underwent an operation on account of inguinal hernia. During the operation a surgeon damaged content of the inguinal canal. What structure was damaged?
a. Urarchus
b. Lig. inguinale
c. -
d. Funiculus spermaticus
e. Lig. teres uteri

317. A patient with fracture of the greater wing of sphenoid bone was admitted to the craniocerebral department. The fracture line went through the spinous foramen. What vessel was damaged?
a. Anterior deep temporal artery
b. Posterior deep temporal artery
c. Superficial artery
d. Lateral pterygoid artery
e. Middle meningeal artery

318. As a result of a road accident a 26-year-old man is in the torpid phase of shock. Blood count: leukocytes - 3,2x10^9/l. What is the leading mechanism of leukopenia development?
a. Increased excretion of the leukocytes from the organism
b. Leukocyte redistribution in the bloodstream
c. Faulty release of mature leukocytes from the bone marrow into the blood
d. Leukopoiesis inhibition
e. Leukocyte destruction in the hematopietic organs

319. A histological specimen presents an organ that has both cortical and medullary substance. Cortical substance consists of an external zone that contains lymph nodules as well as of a paracortical zone. Medullary substance contains medullary cords, sinuses and trabecules. What organ

possesses these morphological signs?
a. Kidney
b. Spleen
c. Lymph node
d. Thymus
e. Adrenal glands

320. A patient has myocardium infarction of the posterior wall of the right ventricle. What arterys branches are thrombosed?
a. Left subclavicular artery
b. Right coronary artery
c. Left and right coronary artery
d. Left coronary artery
e. Right subclavicular artery

321. After prophylactic medical examination a 7 y.o. boy was diagnosed with Lesch-Nyhan syndrome (only boys fall ill). His parents are healthy, but his grandfather by his mothers side has the same disease. What type of inheritance is it?
a. Semidominance
b. Recessive, sex-linked
c. Autosomal and recessive
d. Dominant, sex-linked
e. Autosomal and dominant

322. A histological specimen of mandible of an embryo shows a tooth germ with the dental papilla made up of small stellate basophilic cells. What tissue forms this part of the tooth germ?
a. Mesenchyme
b. Reticular
c. Osseous
d. Cartilaginous
e. Epithelial

323. Examination of mountain climbers who have spent a long time in a high-altitude region revealed increase of erythrocyte number (over 6x1012/l) and haemoglobin concentration (over 170 g/l). What mechanism caused this phenomenon?
a. Weakening of erythrocyte haemolysis in bloodstream
b. Intensified processes of anoxic energy production
c. Weakening of intracellular erythrocyte haemolysis
d. Intensified production of erythropoietin by the kidneys
e. Improved ability of tissue for oxygen utilization

324. Examination of a 42-year-old patient suffering from paradontosis revealed some roundish calcified formations 2-3 mm in diameter in the coronal pulp. Name these structures:
a. Denticles
b. Interglobular spaces
c. Dead dentin
d. Sclerotic dentin
e. Interglobular dentin

325. During an operation on account of mandibular dislocation a doctor should consider effect of a certain muscle. Its posterior fascicles draw back protruding lower jaw. What muscle is meant?
a. M. pterygoideus medialis
b. M. masseter
c. M. temporalis
d. M. pterygoideus lateralis
e. M. mylohyoideus

326. Examination of a patient revealed change of secretory function of a parotid gland. It is

connected with disturbance of its vegetative innervation. What ganglion of vegetative nervous system gives postganglionic parasympathetic fibers for it?

a. Ganglion pterygopalatinum
b. Ganglion ciliare
c. Ganglion oticum
d. Ganglion submandibulare
e. Ganglion sublinguale

327. A patient underwent the extraction of his superior medial incisor. It is supplied with blood by the branches of the following artery:

a. A.sphenopalatina
b. A.alveolaris inferior
c. A.buccalis
d. A.palatina descendens
e. A.infraorbitalis

328. A patient underwent extraction of a tooth with oval crown and two tubercles on its masticatory surface. Its root is strongly flattened in mesiodistal direction, its apex is bifurcated. What tooth was extracted?

a. First superior premolar
b. Canine
c. Second inferior premolar
d. Second superior premolar
e. First inferior premolar

329. As a result of a trauma a patient has got disfunction of lachrymal gland. What nerve is responsible for its secretion?

a. N. auricularis magnus
b. N. occipitalis minor
c. N. petrosus minor
d. Chorda tympany
e. N. petrosus major

330. A 52 year old patient suffering from cancer of the lower jaw underwent a course of radiation therapy. The tumour has remitted. Which mechanism of cell destruction ensures efficiency of radiation therapy most of all?

a. Generation of free radicals
b. Lysis by natural killer cells
c. Mutagenesis
d. Vessel thrombosis
e. Hyperthermia

331. A doctor needs to anaesthetize the anterior part of mucous membrane of hard palate. What nerves should he block?

a. Suborbital nerves
b. Nasopalatine nerves
c. Zygomatic nerves
d. Inferior alveolar nerves
e. Pharyngeal nerves

332. A sensory nerve ganglion consists of roundish neurocytes with one process that divides into axon and dendrite at a certain distance from perikaryon. What are such cells called?

a. Bipolar
b. Unipolar
c. Pseudounipolar
d. Multipolar
e. Apolar

333. Histological study of an extirpated pulp revealed some cylindrical cells in its peripheral layer. What are these cells called?

a. Myofibroblasts
b. Odontoblasts
c. Monocytes
d. Fibroblasts
e. Ameloblasts

334. An animal had been intensively fed with carbohydrates. Histologic examination of its liver revealed a significant number of glycogen granules. Glycogen relates to the following group of cell structures:

a. Special organelles
b. Trophic granules
c. Excretory granules
d. Secretory granules
e. Pigment granules

335. Histological examination of a tissue sample revealed that the tissue had no blood vessels, and the cells were packed tightly together making layers. Specify this tissue:

a. Epithelial
b. Osseous
c. Muscular
d. Nervous
e. Cartilaginous

336. Histological study of a microslide of human skin found only dense irregular connective tissue. Which layer of this organ was analysed?

a. Epidermis
b. Basal layer of epidermis
c. Papillary dermis
d. Subcutaneous adipose tissue
e. Reticular dermis

337. One of sections of central nervous system has layerwise arrangement of neurocytes. Among them there are cells of the following forms: stellate, fusiform, horizontal, pyramidal. What section of central nervous system is this structure typical for?

a. Medulla oblongata
b. Hypothalamus
c. Spinal cord
d. Cerebellum
e. Cortex of cerebrum

338. A microspecimen of the submandibular salivary gland shows some basket-shaped cells concentrated around the acines and excretory ducts. These cells surround bases of the serous cells and are called myoepitheliocytes. These cells relate to the following tissue:

a. Neural tissue
b. Epithelial tissue
c. Muscular tissue
d. Special connective tissue
e. Loose fibrous connective tissue

339. An infectious disease caused contractive activity of muscles that contract and dilate eye pupil (paralytic state). What functional eye system was damaged?

a. Photosensory
b. Lacrimal apparatus
c. Dioptric
d. Ancillary
e. Accomodative

340. In the skin biopsy material in the epidermis there are cells with processes and dark brown granules in their cytoplasm. Name these cells:

a. Intraepidermal macrophages
b. Merkel cells
c. Lymphocytes
d. Melanocytes
e. Keratinocytes

341. A smear specimen of human red bone marrow shows, among myeloid cells and adipocytes, certain stellate cells with oxyphilic cytoplasm that are connected with their cellular processes. Name these cells:

a. Fibroblasts
b. Dendritic cells
c. Osteocytes
d. Reticular cells
e. Macrophages

342. A microslide shows a section of a beanshaped organ with cortical and medullary substances. Its cortical substance contains separate spheric nodules 0.5-1 mm in diameter; its medullary substance consists of medullary cords. This histological section demonstrates the following organ:

a. Thymus
b. Kidney
c. Lymph node
d. Adrenal gland
e. Spleen

343. Microslide of a cardiac tissue shows rectangular cells with central location of the nucleus and well-developed myofibrils connected with Z-disks. These cells perform the following cardiac function:

a. Protective
b. Regenerative
c. Impulse conduction
d. Endocrine
e. Contraction

344. A woman presents with edemas. In her urine there is a large amount of protein excreted. What nephron segment is functionally disturbed in this case?

a. Ascending limb of loop of Henle
b. Renal corpuscle
c. Distal convoluted tubule
d. Proximal convoluted tubule
e. Descending limb of loop of Henle

345. A urine sample was taken via a catheter from the urinary bladder of a 17-yearold young man. Microscopy of the urine precipitate in this case can detect cells of the epithelium that lines the urinary bladder. What epithelium is it?

a. Keratinized stratified epithelium
b. Transitional epithelium
c. Non-stratified columnar epithelium
d. Non-keratinized stratified epithelium
e. Non-stratified cuboidal epithelium

346. A connective tissue specimen stained with hematoxylin-eosin shows isogenous cell groups surrounded with basophilic intercellular substance. No fibrous structures are detected. What type of connective tissue is it?

a. Dense fibrous tissue
b. Elastic cartilage tissue
c. Hyaline cartilage tissue
d. Loose fibrous tissue

e. Splenial bone tissue

347. A sample obtained from the patient’s thyroid gland was processed with silver salts, which revealed large argyrophilic cells in the follicular walls. What hormone is being secreted by these cells?
a. Aldosterone
b. Adrenaline
c. Thyroxine
d. Parathyrin
e. Calcitonin

348. A histological specimen shows three neurons: pseudounipolar, bipolar, and multipolar. How many axons will each of these cell have?
a. Three
b. One
c. None
d. Two
e. Many

349. A certain embryonic organ is being studied. In this organ the first blood corpuscles that make up blood as a tissue are being formed. Name this organ:
a. Yolk sac
b. Thymus
c. Red bone marrow
d. Spleen
e. Liver

350. Fibrocartilaginous layer of trachea consists of C-shaped hyaline cartilage rings, with their open ends facing posteriorly. What tissue connects these open ends?
a. Adipose connective tissue
b. Dense unformed connective tissue
c. Striated muscular tissue
d. Loose fibrous connective tissue
e. Smooth muscular tissue

351. A histological specimen shows cells that form isogenous groups. There are glycoproteins, proteoglycans, and collagen fibers in the intercellular substance. What tissue is it?
a. White adipose tissue
b. Brown adipose tissue
c. Bone tissue
d. Mucous tissue
e. Cartilaginous tissue

352. A patient with chronic hepatitis undergoes blood test for serum protein fractions. Total protein levels are low, which indicates that in the hepatic cells the following organelles are functionally disturbed:
a. Cytoskeleton
b. Granular endoplasmic reticulum
c. Mitochondria
d. Golgi apparatus
e. Lysosomes

353. A histological specimen of mucous tunic of a certain organ shows stratified epithelium consisting of 20-25 cellular layers with squamous superficial cells. Name the organ from which this sample was obtained:
a. Gastric fundus
b. Small intestine
c. Duodenum
d. Esophagus

e. Large intestine

354. Histologic specimen of a tooth slice shows a tissue consisting of intercellular substance permeated with tubules, in which cellular processes of odontoblasts are situated. What tissue is presented in this histologic specimen?

a. Periodontium

b. Dentin

c. Pulp

d. Enamel

e. Cement