Exam Questions on Human anatomy for the second year students of Medical Faculty for International Students (speciality "Dentistry")

(approved at the meeting of the department of 24.11.2016 г. №5)

SKELETON AND JOINTS. MUSCLES


2. Vertebral column: departments, curvatures, its formation in ontogenesis.

3. The structure of vertebra from different parts of vertebra column.

4. Skeleton and a compound of the thorax. The ribs and sternum.

5. Skull: the division on the visceral and cerebral departments, the name and the relative positions of individual bones. Morphogenesis of the skull: the sources and stages of bone development during embryogenesis.

6. The structure of the temporal bone: part of the relief. Canals and canaliculi of the temporal bone and the contents.


9. Calvaria: relief of external and the cerebral surfaces of cranium, the sutures. Structure and development of the calvarium bones in embryogenesis.

10. External and internal base of the skull: the relative positions of bones, relief of the surfaces; foramina; canals, fissures, its purpose.

11. The lateral norm of the cranium: borders, bone base of the infratemporal and temporal fossa, connections to other cavities of the skull.


13. Bone nasal cavity: the walls, the nasal meatus and connection with paranasal sines and orbit.

15. General morphological and functional characteristics of the upper extremities skeleton: the name of the bones, its relative positions.

16. General morphological and functional characteristics of the lower extremities skeleton: the name of the bones, its relative positions.

17. Union of bones: classification, morphological and functional characteristics. Joints: structural components. Classification of the joints. Which factors are determined the number of axes and the range of the movement (by the example of the of the extremities joints).

18. Fibrous and cartilaginous union of the skull bones. Atlantooccipital and atlantoaxial joints: the shape of the articular surfaces, the movements, the ligaments.


21. The structure of the muscles as the organ, the sources of embryogenetic development. Classification of skeletal muscles (in shape, direction of muscle fiber, function, the position in the human body). Anatomical and physiological diameter of the muscle. Accessory apparatus of the muscle.


26. Masticatory muscles: the development in embryogenesis, structure, functions, sources of blood supply and innervation. The fascias of the head.
27. The muscles that provide movement of the mandible: the sources of development in embryogenesis, structure, and function. The phases of opening and closing the mouth.

**CARDIOVASCULAR SYSTEM**

**LYMPHOID SYSTEM**


29. The structure of the wall of the heart: endocardium, myocardium and epicardium. Conduction system of the heart: bundles and nodes, topography, the functional significance.

30. Pericardium: fibrous, serous. Pericardial cavity. The blood supply and innervation of the heart.

31. Aorta: departments. The branches of the arch, thoracic and abdominal parts of the aorta.

32. External carotid artery: branches, areas of blood supply.

33. Maxillary artery: parts, branches, areas of blood supply.

34. The internal carotid artery: branches, areas of blood supply.

35. Subclavian artery: parts, branches, areas of blood supply.

36. The principles of the structure of arterial, venous and lymphatic bed of limbs.

37. The blood supply of the brain: sources, arterial circle of the brain, the functional significance of the dampers.


39. The main facial veins: the topography of facial and retromandibular veins, tributaries, anastomoses.

40. Pterygoid venous plexus: the topography, the sources of formation, anastomosis.

41. Main veins of neck: the topography of the anterior, external and internal jugular veins, tributaries, anastomoses.
42. Portal and the cava veins: the topography, the general morphological and functional characteristics, tributaries. Cavacaval and portacaval anastomoses (shunt).

43. Thoracic and right lymphatic ducts: the sources of formation, topography, location, the confluence to venous system.

44. The lymph nodes of head and neck: classification and topography.

NERVOUS SYSTEM. SENSE ORGANS.

ENDOCRINE GLANDS.

45. Nervous system: topographic and anatomy-functional classification, significance for the body


48. The brain: parts, classification according to the sources of development during embryogenesis. Medulla oblongata: the boundaries, relief of surface, the nuclei of gray matter, reticular formation, the topography of white matter.

49. The fourth ventricle: the walls, connection to other cavities of the brain and the subarachnoid space, the choroid plexus.

50. Pons: borders, the external structure of the nuclei of gray matter. Cerebellum: hemisphere, vermis, cerebellar peduncles, nuclei of the cerebellum.


52. Diencephalon: thalamus, metathalamus, epithalamus, hypothalamus. The third ventricle: the walls, connection to other cavities of the brain.

53. Telencephalon. Surfaces, lobes, the main fissures and gyri of the brain hemisphere. Location of the cerebral hemisphere functions.

54. Telencephalon: basal ganglia, white matter. The lateral ventricle: parts, connection to other cavities of the brain.

55. Classification of conduction pathways. The general structure principle of sensitive (afferent) and motor (efferent) conduction pathways.
58. Spinal nerves: the branches, areas of division, the plexuses formation.
59. Cervical plexus: sources of formation, branches, areas of innervation.
60. Cranial nerves: general morphological and functional characteristics, classification.
61. The oculomotor (III), trochlear (IV),abducens(VI) nerves: the nuclei, the exit site of the brain and the skull, the branches, regions of innervation.
62. The trigeminal (V) nerve: the nuclei, the roots, the ganglion, the overall plan of branching. Ophthalmic (V1) nerve: branches, areas of innervation.
63. Maxillary (V2) nerve: branches and areas of innervation.
64. Mandibular (V3) nerve: branches and areas of innervation.
65. The facial and intermediate (VII) nerve: the nuclei, the localization in the brainstem, Branches, areas of innervation.
66. Glossopharyngeal (IX) nerve: the nucleus, the exit site of the brain and the skull, sensitive ganglions, branches, regions of innervation.
67. Vagus (X) nerve: the nucleus, the exit site of the brain and the skull, branches, areas of innervation.
68. Accessorius (XI) and hypoglossal (XII) nerve: the nucleus, the exit site of the brain and the skull, branches, areas of innervation.
69. Autonomic (vegetative) nervous system: general principles of structure and function; morphological and functional differences from the animal part of nervous system. Division by sympathetic and parasympathetic part, their structural and functional differences.
70. Morphological and functional features of the sympathetic divisionof autonomic nervous system:
71. Morphological and functional features of the parasympathetic division of autonomic nervous system:
72. External ear: pinna, external auditory canal, tympanic membrane. Structure, function, blood supply, innervation.

73. Middle ear: tympanic cavity, auditory tube, mastoid cells. Structure, function, blood supply, innervation.


75. Eyeball: the structure of the fibrous, vascular tunics and retina. Content of the eyeball.

76. Accessory eye structures: extraocular muscles of the eyeball, eyelids, conjunctiva, the lacrimal apparatus. The optic (II) nerve, conduction path of the visual analyzer.

77. The pituitary gland, thyroid and parathyroid glands, adrenal glands: the topography, the general morphological and functional characteristics.

**DIGESTIVE SYSTEM**


79. Oral cavity proper: walls, borders. The hard palate structure, the relief of the mucous membrane. Innervation, blood supply.


81. Tongue: functions, parts, the relief of the mucous membrane. The internal and external muscles of the tongue. Innervation, blood supply, the lymph flow.

82. General morphological and functional characteristics of the teeth. Parts of the tooth: the root, the neck, the crown. The cavity of the crown, root canal. Blood supply and innervation of the teeth, lymph drainage.

83. Parotid, submandibular and sublingual glands: structure, topography of ducts, innervation, blood supply and lymphatic drainage.

84. Pharynx: functions, topography, departments, wall structures. Lymphoepithelial Waldeyer’s ring of pharynx. Innervation, blood supply and lymphatic drainage.
85. Esophagus: topography, departments, wall structures. Innervation, blood supply, lymphatic drainage.

86. Stomach: topography, the macroscopic structure. Innervation, blood supply, lymphatic drainage.

87. Small intestine: functions, topography, departments, the macroscopic structure. Innervation, blood supply, lymphatic drainage.

88. The colon: functions, topography, departments, the macroscopic structure. Innervation, blood supply, lymphatic drainage.


91. Parietal and visceral peritoneum, the peritoneal cavity. The derivatives of the peritoneum: greater and lesser omentum, mesentery, pits, folds.

**RESPIRATORY SYSTEM**

92. External nose: parts, nose cartilages. The nasal cavity: functions, structure of the walls, the nasal conchae and nasal passages, connection with paranasal sinuses. Innervation, blood supply, lymphatic drainage.

93. Paranasal sinuses: location, communication with the nasal cavity, functions, development during embryogenesis. The ratio of the maxillary sinus to the roots of maxillary teeth.


95. Trachea, bronchi: function, topography, the macroscopic structure of the trachea and different caliber bronchi. Innervation, blood supply and lymphatic drainage.

96. Lungs: functions, the macroscopic structure. Innervation, blood supply and lymphatic drainage.

URINARY AND REPRODUCTIVE SYSTEM


100. Functional morphology of the internal and external male genitalia. Ways of seminal fluid elimination.

101. Functional morphology of the internal and external female reproductive organs.

CLINICAL ANATOMY OF HEAD AND NECK

102. Neck: border; regions, triangles. The projection on the skin of the common carotid and subclavian artery, the phrenic nerve, the supraclavicular part of the brachial plexus, cutaneous branches of the cervical plexus. Innervation of the skin of the neck.

103. Suprahyoid region: borders, triangles, layer by layer structure. Submandibular and sublingual cellular spaces: the borders are located in anatomical structure, relationship to other cellular spaces of the head and neck.


106. Sternocleidomastoid region. Scalenovertebral and interscalenum triangles, prescalenum space: the border and contents. Subclavian artery, departments, branches.

107. The lateral triangle of neck: stratified structure of omoloclavicular and omotrapezoid triangles.

108. Topography of vagus nerve: the relationship with the elements of the neurovascular bundle; branches, innervated organs. The relationship of the recurrent laryngeal nerves with aorta, the right subclavian artery and the neck organs.
109. The cervical sympathetic trunk: the name of the ganglion, branches and innervation regions,

110. The surface anatomy of the head: the boundary of the head and neck, division into cerebral and facial parts. Regions of the facial part of the head. The projection on the skin where exit branches of the trigeminal nerve, facial, superficial temporal and occipital arteries, the facial nerve, duct of parotid gland exit. Sources of scalp innervation.


113. Layer by layer structure of the bottom wall of the mouth. The relief of the mucous membrane, muscle of mouth diaphragm. Intermuscular spaces, sublingual cellular spaces: borders, the contents, communicate to other cellular spaces of the head and neck.


115. Permanent incisors: relief of crown surfaces, the characteristic of roots and tooth cavities. Innervation, blood supply and lymphatic drainage. Anatomical landmarks used of incisors anesthesia.

116. Permanent canines: relief of crown surfaces, the characteristic of roots and tooth cavities. Innervation, blood supply and lymphatic drainage. Anatomical landmarks used of canines anesthesia.

117. Permanent premolars: relief of crown surfaces, the characteristic of roots and tooth cavities. Innervation, blood supply and lymphatic drainage. Anatomical landmarks used of premolars anesthesia.

118. Permanent molars: relief of crown surfaces, the characteristic of roots and tooth cavities. Innervation, blood supply and lymphatic drainage. Anatomical landmarks used of molars anesthesia.

120. Parotideomasseteric region: borders, layer by layer structure. Parotid gland, projection on the skin, parts. The relationship with the neurovascular components, external auditory canal and the wall of the pharynx, the projection of parotid duct. Innervation, blood supply and lymphatic drainage of parotid gland.

121. Buccal region: borders, layer by layer structure; fat body of cheek. The course of the facial artery and vein, branches, anastomoses. Spaces of canine fossa and infraorbital cellular spaces and their connections with other spaces of the head.

122. Deep region of the face: border; bony wall of the infratemporal and pterygopalatine fossa; the contents. Spaces of deep region of the face, the relationship with other spaces of the head and neck.


124. The nose: the external nose and nasal cavity. The nasal passages and their communication to the paranasal sinuses and orbit. Blood supply, innervation and lymphatic drainage of the mucous membranes of the nose.

125. Fronto-parietal-occipital region: borders, layer by layer structure (muscle, fascia, spaces). Sources of blood supply and innervation of individual.

125. Temporal region: border; layer by layer structure, cellular spaces. Sources of blood supply and innervation of the skin and temporal muscle.

126. The area of the mastoid process: layer by layer structure. Trepanation Shipo’s triangle: the projection of the facial nerve canal, the middle cranial fossa and sigmoid sinus on the surface of the mastoid process.

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