QUESTIONNAIRE OF HUMAN ANATOMY

for 2nd Year Dental Medicine Students of the English Language Programme,
Medical University "Prof. Dr. Paraskev Stoyanov" – Varna (Academic Year 2012 – 2013)

I. OSTEOLOGY AND ARTHROLOGY

1. Osteology - study of the bones. Shape and internal structure of bones. The bone as an organ. Bone development and growth.
2. Skull. Ontogenesis. Facial bones.
3. Skull. Ontogenesis. Cranial bones.
4. Cranial calvaria (skull cap). Cranial base. Internal surface of the cranial base. External surface of the cranial base.
5. Lateral view of the skull (norma lateralis).
6. Orbit.
7. Bony nasal cavity.
8. Joints (diarthroses) - classification. Fibrous, cartilaginous and bony joints. Synovial joints – general anatomy, types of synovial joints. Structure and biomechanics of joints.
9. Joints of the vertebral column. The vertebral column as a whole. The craniovertebral joints.
10. Joints of the thoracic cage. The thoracic cage as a whole.
11. Joints of the skull bones. Temporomandibular joint.
12. Prenatal and postnatal development of the skull. X-ray anatomy of the skull. Age pecularities.
13. Joints of the pectoral girdle. The pectoral girdle as a whole. Glenohumeral joint.
14. Elbow joint. Joints of the forearm. Wrist and midcarpal joints.
15. Carpometacarpal joint. Joints of the digits of the hand.
16. Joints and ligaments of the pelvic girdle. The pelvis as a whole. Hip joint
17. Knee joint. Joints of the leg. Ankle joint
18. Joints of the foot. Tarsometatarsal, metatarsophalangeal and interphalangeal joints.
19. General principles of the imaging anatomy. X-ray imaging, computed tomography (CT), ultrasound imaging, positron emission tomography, magnetic resonance imaging (MRI).

II. MYOLOGY

20. Skeletal muscle – structural organization; types of skeletal muscles. The muscle as an organ. Connective tissue formations of skeletal muscles and tendons. Internal and external mechanics of the skeletal muscles.
21. Muscles of the head. Muscles of facial expression. Muscles of chewing. Blood supply and innervations. Fasciae of the head.
22. Muscles of the back. Superficial muscles of the back. Deep muscles of the back. Blood supply and innervation. Fasciae of the back.
23. Muscles of the neck. Superficial and hyoid muscles. Deep muscles of the neck. . Cervical fascia. Blood supply and innervation.
24. Thoracic muscles: muscles of the pectoral girdle, muscles of the thoracic wall proper. Blood supply and innervation. Thoracic fasciae. Diaphragm.
25. Muscles of the anterior abdominal wall. Fasciae of the abdominal wall. Blood supply and innervation. Inguinal canal.
26. Proper muscles of the pectoral girdle (muscles of the shoulder). Brachial muscles. Brachial fascia. Blood supply and innervation.
27. Muscles of the forearm – anterior, lateral and posterior group. Antebrachial fascia. Blood supply and innervation.
28. Muscles of the hand. Muscles of thenar, hypothenar and palm of the hand. Fasciae of the hand. Blood supply and innervation.
29. Muscles of the hip anterior and posterior group. Muscles of the thigh anterior, medial and posterior group. Femoral fascia. Blood supply and innervation.
30. Muscles of the leg – anterior, posterior and lateral group. Fascia of the leg. Blood supply and innervation.
31. Muscles of the foot – plantar and dorsal muscles of the food. Fasciae of the foot. Blood supply and innervation.

III. SPLANCHNOLOGY

32. Internal organs. Basic structural plan of the internal organs. Digestive system – general principles of organization of its organs. Ontogenesis.
33. Oral cavity – parts. Ontogenesis and anomalies of the face and oral cavity.
34. Oral cavity – vestibule. Oral cavity proper. Lips. Cheeks. Blood supply, lymph drainage and innervation.
35. Oral cavity – soft and hard palate, gingiva. Oral mucosa. Blood supply, lymph drainage and innervation.
36. Tongue. Structure. Blood supply, lymph drainage and innervation. Ontogenesis.
37. Teeth – structure of the teeth. Blood supply, lymph drainage and innervation.
38. Tooth/Periodontal attachment apparatus. Dento-alveolar syndesmosis (gomphosis).
39. Teeth – deciduous dentition. Eruption of the deciduous teeth.

40. Teeth – permanent dentition. Eruption of the permanent teeth.
41. Embryonic development of the teeth.
42. Salivary glands – intrinsic and extrinsic salivary glands. Blood supply, lymph drainage and innervation.
43. Fauces. Palatine tonsil. Waldeyer's ring.
44. Pharynx. Regional anatomy. Structure. Blood supply, lymph drainage and innervation.
45. Esophagus – regional anatomy, structure. Blood supply, lymph drainage and innervation.
46. Stomach – shape, parts, regional anatomy. Structure of the wall. X-ray anatomy. Blood supply, lymph drainage and innervation.
47. Small intestine – duodenum, jejunum and ileum. Regional anatomy. Structure of the wall. Blood supply, lymph drainage and innervation.
48. Large intestine: cecum, vermiform appendix, colon, rectum. Regional anatomy. Structure of the wall. Blood supply, lymph drainage and innervation.
49. Pancreas. Regional anatomy. Structural organization of the exocrine and endocrine parts. Blood supply, lymph drainage and innervation.
50. Liver – regional anatomy, external morphology. Liver lobes and segments. Internal morphology. Blood supply, lymph drainage and innervation.
51. Gallbladder and extrahepatic bile ducts. Blood supply, lymph drainage and innervation.
52. Peritoneum – general data. Relationship to abdominal organs. Course of peritoneum in descending and transverse direction. Peritoneal cavity: supracolic, infracolic and pelvic compartments; peritoneal formations; communications.
53. Respiratory system. Basic plan of structural organization. Ontogenesis.
54. Nose: external nose and nasal cavity. Blood supply, lymph drainage and innervation.
55. Paranasal sinuses. Ontogenesis. Blood supply, lymph drainage and innervation.
56. Larynx – cartillages, connections and muscles. Regional anatomy. Laryngeal mucosa. Laryngeal cavity. Blood supply, lymph drainage and innervation.
57. Trachea. Primary bronchi. Regional anatomy. Structure of the wall. Blood supply, lymph drainage and innervation.
58. Lungs. Shape, size, regional anatomy. X-ray anatomy. Anatomic and functional units – pulmonary lobes, segments, lobules and acini. Blood supply, lymph drainage and innervation.
59. Pleura – parietal and visceral. Pleural cavities. Borders of the parietal pleurae.
60. Urinary and reproductive systems. General principles of structural organization. Ontogenesis.
61. Kidney – shape, regional anatomy, supporting apparatus. Internal structure. Blood supply, lymph drainage and innervation. Renal anomalies.
62. Excretory ducts of the kidney (minor calyces, major calyces, pelvis, ureter). Urinary bladder. Male and female urethra. Regional anatomy. Structure of the wall. Blood supply, lymph drainage and innervation.

63. Testis. Epididymis. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation.
64. Ductus deferens. Seminal vesicle. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation. Spermatic cord. Coverings of the testis. Scrotum.
65. Prostate. Bulbourethral glands. Penis. Regional anatomy. Microscopic arrangement. Blood supply, lymph drainage and innervation.
66. Ovary. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation. Uterine tube. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation.
67. Uterus. Vagina. External genitalia. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation.
68. Mammary gland. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation.

IV. ENDOCRINE SYSTEM

69. Endocrine glands. General anatomical features.
70. Pituitary gland – general data. Adenohypophysis. Microscopic structure. Hypothalamo-pituitary system. Neurohypophysis. Microscopic structure. Interaction of the neurohypophysis and hypothalamus.
71. Pineal gland (epiphysis cerebri). Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation.
72. Thyroid gland. Parathyroid glands. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation.
73. Adrenal glands. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation. Paraganglia.
74. Diffuse neuro-endocrine system (DNES). Microscopic structure.

V. ANGIOLOGY (CARDIOVASCULAR AND LYMPHATIC SYSTEMS)

75. Heart – regional anatomy, external view, X-ray anatomy of the heart.
76. Chambers and valves of the heart.
77. Structure of the heart wall. Fibrous skeleton of the heart. Impulse-conducting system. Innervation of the heart.
78. Blood and lymphatic vessels of the heart. Pericardium. Pericardial cavity.
79. Structural plan of the circulatory system. Arterial and venous parts of the circulatory system. Anastomoses - types. Collateral blood circulation.

80. Structure of the vessel wall. Structure of the arterial wall; structure of the vein wall and valves. Blood and nerve supply.
81. Microcirculatory bed: types, arterioles, capillaries, venules. Arteriovenous anastomoses.
82. Vessels of the pulmonary circulation.
83. Aorta – general view, regions and major branches: ascending aorta, aortic arch, thoracic aorta and abdominal aorta.
84. Common carotid artery. External carotid artery.
85. External carotid artery. Maxillary artery.
86. Internal carotid artery.
87. Subclavian artery.
88. Axillary and brachial arteries.
89. Arteries of the forarm and hand (radial and ulnar arteries).
90. Branches of the thoracic aorta.
91. Branches of the abdominal aorta – parietal and visceral.
92. Common and internal iliac arteries.
93. External iliac artery. Femoral artery.
94. Popliteal artery. Arteries of the leg and foot.
95. Superior vena cava system – veins of the head.
96. Superior vena cava system – veins of the neck.
97. Veins of the upper limb.
98. Veins of the thoracic wall and superior abdominal wall.
99. Inferior vena cava system.
100. Veins of the pelvis and lower limb.
101. Hepatic portal system.
102. Venous anastomoses – intercaval and portocaval anastomoses.
103. Bone marrow. Microscopic arrangement. Thymus. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation.
104. Lymphatic nodes – structure.
105. Spleen. Regional anatomy. Microscopic structure. Blood supply, lymph drainage and innervation.
106. Main lymphatic vessels.
107. Lymphatic vessels and regional lymphatic nodes of the head.
108. Lymphatic vessels and regional lymphatic nodes of the neck.
109. Lymphatic vessels and regional lymphatic nodes of the thorax and upper limb.
110. Lymphatic vessels and regional lymphatic nodes of the abdomen.
111. Lymphatic vessels and regional lymphatic nodes of the pelvis and lower limb.

112. Nervous system – general data. General organization of the nervous system.
113. Development of the nervous system.
114. Spinal cord – external morphology. Internal morphology.
115. Spinal cord – white matter.
116. Spinal cord and brain - meninges and blood supply.
117. Medulla oblongata.
118. Pons.
119. Mesencephalon (midbrain).
120. Cerebellum - divisions and nuclei. Internal morphology of the cerebellum: cortex. Cerebellar pathways. Functions.
121. Diencephalon. Metathalamus, epithalamus, subthalamus (ventral thalamus). Hypothalamus.
122. Telencephalon : cerebral hemispheres - lobes, sulci, gyri.
123. Telencephalon - white matter.
124. Rhinencephalon (smell brain).
125. Basal ganglia.
126. Lymbic system.
127. Structural organization of cerebral cortex. Cortical functional areas. Cerebral dominance.
128. Brain blood supply. Blood-cerebral barrier.
129. Lateral ventricles. Third and fourth ventricles. Cerebrospinal fluid. Blood-fluid barrier.
130. Sensory systems - system of superficial mechanical reception.
131. Anterolateral system: pain, temperature.
132. Proprioceptive sensory system.
133. Trigeminal system.
134. Interoceptive sensory system.
135. Visual sensory system.
136. Auditory sensory system.
137. Vestibular sensory system.
138. Gustatory sensory system.
139. Olfactory sensory system.
140. Motor systems - general data. Pyramidal motor system, corticonuclear and oculomotor systems.
141. Extrapyramidal system.
142. Reticular formation.
143. Visceral nervous system – general organization.
144. Spinal nerves. Dorsal rami of spinal nerves. Cervical plexus.
145. Brachial plexus – formation. Nerves of the thoracic wall. Nerves of the upper limb.

146. Ventral branches of the thoracic spinal nerves.
147. Lumbar plexus.
148. Sacral plexus.
149. Oculomotor, trochlear, abducens nerves: cranial nerves (CN) III, IV, VI.
150. Trigeminal nerve (CN V) – general features, formation, areas of innervation.
151. Ophthalmic nerve (CN V_1).
152. Maxillary nerve (CN V_2).
153. Mandibular nerve (CN V_3).
154. Facial nerve (CN VII).
155. Vestibulocochlear nerve (CN VIII).
156. Glossopharyngeal nerve (CN IX).
157. Vagus nerve (CN X).
158. Accessory nerve (CN XI). Hypoglossal nerve (CN XII).
159. Sympathetic trunk.
160. Cervical part of the sympathetic trunk.
161. Thoracic, abdominal and pelvic parts of the sympathetic trunk. Prevertebral sympathetic ganglia.
162. Parasympathetic nerves of spinal origin.
163. Visceral plexuses in the thoracic, abdominal and pelvic cavity.
164. Eye apparatus – general data. Ontogenesis. Eyeball – external morphology. The tunica fibrosa.
165. The tunica vasculosa (uvea): choroid, ciliary body. Iris. Iridocorneal angle.
166. The tunica interna (retina).
167. Ocular refractive tissues.
168. Accessory eye apparatus. Muscles of the eyeball. Lacrimal apparatus. Eyebrows and eyelids. Conjunctiva.
169. Auditory and vestibular apparatus. External ear.
170. Middle ear: tympanic cavity. Auditory tube. Tympanic membrane. Auditory ossicles.
171. Inner ear – osseous labytinth. Membranous labyrinth – vestibular apparatus.
172. Organ of Corti.
173. Organ of smell. Organ of taste.
174. Skin. Microscopic structure. Blood supply, innervation. Skin appendages. Microscopic structure.

VI. TOPOGRAPHIC (REGIONAL) ANATOMY

175. Deltoid region. Anterior brachial region. Posterior brachial region.
176. Elbow (cubital region). Anterior forearm region. Posterior forearm region.
177. Wrist region. Palm of the hand. Dorsum of the hand.

178. Gluteal region.
179. Anterior femoral region.
180. Posterior femoral (thigh) region. Knee (genus).
181. Anterior region of the leg. Posterior region of the leg.
182. Calcaneal region. Dorsal region of the foot. Plantar region of the foot.
183. Fronto-parieto-occipital region.
184. Temporal region. Mastoid region.
185. Base of the skull.
186. Infratemporal region. Pterygopalatine fossa.
187. Lateral region of the face.
188. Parotid-masseteric region of the face.
189. Orbital region.
190. Nasal region. Paranasal sinusses. Communications.
191. Oral region.
192. Fasciae of neck.
193. Anterior region of the neck.
194. Submandibular triangle.
195. Carotid triangle.
196. Sternocleidomastoid region.
197. Lateral region of the neck. Viscera of the neck.
198. Subclavian region.
199. Mammary region.
200. Axillary region.
201. The thoracic wall. Diaphragm.
202. The chest. Mediastinum.
203. Anterior abdominal wall. Inguinal canal.
204. Superior and inferior compartments of the abdominal cavity.
205. Retroperitoneal space.
206. Peritoneal part of the pelvis. Subperitoneal part of the pelvis.
207. Pelvic viscera. Vessels, nerves.
208. Subcutaneous part of the pelvis.
209. Posterior region of the neck. Scapular region. Subscapular region. Lumbal region.
210. Vertebral region. Vertebral canal – content.