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**Topic list for the written part of the **Anatomy comprehensive exam**  
of the **Third** semester  
Academic year 2018/2019**

**I ANATOMY**

**I.1 Locomotor system**

- 1 Bones of the neurocranium (list)
- 2 Bones of the viscerocranium (list)
- 3 Identification of the structure of the frontal aspect of the skull (picture)
- 4 X-ray image of the hand: identification of bones (picture)
- 5 X-ray image of the shoulder: identification of bones (picture)
- 6 X-ray image of the pelvis: identification of bones (picture)
- 7 X-ray image of the knee: identification of bones (picture)
- 8 X-ray image of the ankle: identification of bones (picture)
- 9 Structures of the carpal tunnel (list)
- 10 Ligaments of the hip joint (list)
- 11 Innervation of the thenar muscles
- 12 Structures of the sublingual hiatus
- 13 Structures of the suprapiriform hiatus
- 14 Structures of the infrapiriform hiatus
- 15 Types of uniaxial joints with examples
- 16 Types of biaxial joints with examples
- 17 Obligatory and additional components of the synovial joints
- 18 Muscles of the forearm: volar region (list)
- 19 Muscles of the forearm: dorsal region (list)
- 20 Adductors of the thigh (list)
- 21 Flexors of the thigh (list)
- 22 Extensors of the thigh (list)

- 23 Popliteal fossa: borders and structures
- 24 Characteristics of cervical, thoracic and lumbar vertebrae

## **1.2 Body cavities, splanchnology**

- 25 Layers of the thoracic wall
- 26 Structure, items of the intercostal space
- 27 Definition, borders, subdivision of the mediastinum
- 28 Layers, items of the superior mediastinum
- 29 Compartments, items of the inferior mediastinum
- 30 Chest X-ray: identification of the contours of the heart
- 31 Anatomy of the valves of the heart
- 32 The impulse generating and conducting system and innervation of the heart
- 33 The branches and supply area of the right coronary artery
- 34 The branches and supply area of the left coronary artery
- 35 The proper veins of the heart
- 36 The anatomical parts of the aorta
- 37 The branches of the aortic arch (angiogram)
- 38 The tributaries of the superior vena cava
- 39 The unpaired visceral branches of the abdominal aorta
- 40 The paired visceral branches of the abdominal aorta
- 41 The parietal branches of the abdominal aorta
- 42 The main lymphatic vessels of the body
- 43 Paranasal sinuses and their precise opening sites into the nasal cavity
- 44 Frontal section of the larynx: identification of structures
- 45 Hilar structures of the lung
- 46 Structures of the isthmus faucium
- 47 Large salivary glands: names, their secretomotor innervation, type of secretion, and precise opening sites into the oral cavity
- 48 Tonsils in the pharynx (list), Waldeyer's lymphatic ring
- 49 The openings of the diaphragm and the structures passing through
- 50 Layers of the abdominal wall
- 51 Structure of the rectus sheath
- 52 Structures passing through the female and male inguinal canal
- 53 Topographical regions of the abdominal cavity, projection of the abdominal organs onto the abdominal wall

- 54 Peritoneal relations of the abdominal and pelvic organs
- 55 Hilar structures of the liver (porta hepatis)
- 56 Extrahepatic bile ducts
- 57 Layers of the scrotum
- 58 Structures of the spermatic cord
- 59 Structures of the vulva
- 60 Fossa ischioirectalis; borders, structures of the pudendal canal
- 61 Position, anatomy, fixture of the uterus
- 62 Anatomical parts of the male urethra
- 63 Tributaries of the portal hepatic vein
- 64 Crossings of the ureter
- 65 Hilar structures of the kidney (hilum renale)
- 66 Branches of the renal artery
- 67 Anatomy of the pyelon and the ureter (X-ray picture)

### **I.3 Nervous system, special sense organs, head and neck**

- 68 Structures of the superior orbital fissure
- 69 Structures of the internal acoustic meatus
- 70 Segmental autonomic reflex arch (spinal cord)
- 71 Anatomy of the proprioceptive reflex arch (spinal cord)
- 72 Cranial nerves and their site of exit through the brainstem and the skull
- 73 The vertebral level of the conus medullaris in the newborn and in the adult
- 74 The vertebral level of the end of the spinal dural sack in the adult
- 75 Branches of the arterious circle of Willis
- 76 Afferent and efferent limbs of the corneal (blink) reflex
- 77 Sympathetic innervation of the iris
- 78 Parasympathetic innervation of the iris (pupillary light reflex)
- 79 The walls of the tympanic cavity (list)
- 80 Muscles innervated by the facial nerve
- 81 Masticatory muscles: list and innervation
- 82 Topography of the common carotid artery
- 83 Parasympathetic ganglia of the head
- 84 The dorsal column-medial lemniscus pathway: localisation of neurons and synapses
- 85 Anatomy of the spinothalamic tract

- 86 Neuroanatomical organisation of the spinal white matter (tracts on cross section)
- 87 List of the cranial nerves and muscles that control eye movements
- 88 Branches of the facial nerve
- 89 Branches of the ophtalmic nerve
- 90 Branches of the maxillary nerve
- 91 Branches of the mandibular nerve
- 92 Blood supply, innervation of the dura mater of the brain
- 93 Duplicatures of the dura within the cranial cavity
- 94 List five subarachnoid cisterns
- 95 List five dural sinuses
- 96 Parasympathetic nuclei of the brain stem
- 97 Brain stem nuclei of the oculomotor nerve
- 98 Brain stem nuclei of the trigeminal nerve
- 99 Brain stem nuclei of the facial nerve
- 100 Brain stem nuclei of the glossopgaryngeal nerve nerve
- 101 Brain stem nuclei of the vagus nerve
- 102 Internal capsule: localization of the tracts passing through and its blood supply
- 103 Topography of the internal capsule- identification of the internal capsule and related structures in MRI images
- 104 Ventricles of the brain: anatomy, localisation
- 105 Cervical plexus: origin, branches
- 106 Brachial plexus: origin, branches
- 107 Lumbar plexus: origin, branches
- 108 Sacral plexus: origin, branches

## **II EMBRYOLOGY**

- 109 Parts of the blastocyst
- 110 Type of the implantation of the human embryo
- 111 Layers of the placental barrier
- 112 Definition of the cotyledon
- 113 Anatomy of the normal placenta: weight, shape, size and surfaces
- 114 Definition of gastrulation
- 115 Definition of neurulation
- 116 Brain vesicles (3 vesicles stage): names

- 117 Brain vesicles (5 vesicles stage): names
- 118 Organs developing from the five pharyngeal pouches
- 119 Derivative of the first pharyngeal cleft (ectoderm)
- 120 Vascular shunts in the fetal circulation
- 121 Fetal membranes (list) and the anatomy of the umbilical cord
- 122 Parts of the decidua
- 123 Definition of the amnion
- 124 Definition of the chorion
- 125 Developmental stages of erythrocytes
- 126 Developmental remnants on the adult heart
- 127 Developmental remnants on the anterior abdominal wall (inner surface)
- 128 Developmental remnants on the visceral surface of the liver
- 129 Derivatives of the ectoderm
- 130 Derivatives of the mesoderm
- 131 Derivatives of the entoderm

### **III HISTOLOGY**

- 132 Layers of the stratified squamous keratinised epithelium
- 133 Morphology of a serous gland acinus
- 134 Morphology of a mucous gland acinus
- 135 Types of the connective tissue fibres and their staining methods
- 136 Types of ossification – short characterisation
- 137 Definition of the osteon, cell types of bone tissue
- 138 Electron microscopic structure of the skeletal muscle (picture)
- 139 Types of capillaries (list)
- 140 Identification of capillary types on electron microscopic pictures
- 141 Elastic artery – structure of the arterial wall
- 142 Muscular artery – structure of the arterial wall
- 143 Qualitative and quantitative blood cell count
- 144 Types of white blood cells (picture)
- 145 Definition of the primary and secondary lymphatic follicle, topography, cell types
- 146 Structure of the lymph node (picture)
- 147 Layers of the blood-thymus barrier
- 148 Histology of the lung, cell types (picture)

- 149 Definition of the blood-air barrier, electron microscopic structure
- 150 Histological layers of the wall of the gastrointestinal tract
- 151 Cell types of the fundic glands of the stomach, list of secreted products
- 152 Parts and epithelial transitions of the anal canal
- 153 Histology of the liver (picture)
- 154 Histology of the kidney (pictures)
- 155 Parts of the nephron (list)
- 156 Cellular components of the juxtaglomerular apparatus and their function
- 157 Electron microscopic structure of the ultrafiltration barrier of the kidney
- 158 Morphology of the Graafian follicle (picture)
- 159 Histology of the testis (picture)
- 160 Testis and epididymis: types of epithelia in their tubular system
- 161 Epithelial covering of the male urethra according to the anatomical parts
- 162 Histology of the thyroid gland (picture)
- 163 Definition of the endocrine, paracrine, autocrine secretion
- 164 Definition of neurosecretion, structures in the hypothalamus
- 165 Histology of the suprarenal gland (picture), histology of the cortex and the medulla
- 166 Layers and blood supply of the retina
- 167 Histology of the skin and derivatives