

TOPICS OF ANATOMY FOR THE FINAL EXAM 2018

MUSCULOSKELETAL SYSTEM

1. Axial skeleton; description of cervical, thoracic and lumbar vertebrae, sacrum
2. Axial skeleton; description of the sternum and ribs
3. Bones of the neurocranium and splanchnocranium, the skull as a whole
4. Skeleton of the upper limb; description of the scapula, clavicle, humerus, ulna, radius, carpus, metacarpal bones and phalanges
5. Skeleton of the lower limb; description of the hip bone, femur, tibia, fibula, tarsal bones, metatarsal bones and phalanges, the pelvis as a whole
6. Syndesmosis (description, example); foot interossei
7. Synchondrosis (description, example); muscles of the hip – posterior group, deep layer (pelvitrochanteric)
8. Synostosis (description, example); leg muscles – posterior compartment, deep layer
9. General description of diarthrosis; facial muscles – muscles of the calvaria, muscles around the nose
10. Auxiliary joint equipment; the trapezius, latissimus dorsi
11. Amphiarthrosis (description, example); forearm muscles – anterior compartment, superficial layer
12. Plane joint (description, example); leg muscles – anterior compartment
13. Arthrodia, enarthrosis (description, examples); leg muscles – posterior compartment, superficial layer
14. Lateral atlanto–axial joint; leg muscles – lateral compartment
15. Pivot joint (description, example); dorsal muscles of the upper arm
16. Hinge joint (description, example); muscles of back – heterochthonous (extrinsic), spinocostal muscles
17. Saddle joint (description, example); muscles of the forearm – anterior compartment, middle and deep layer
18. Ellipsoid joint (description, example); muscles of the forearm – posterior compartment, superficial layer
19. Hinge joint (ginglymus) (description, example); forearm muscles – posterior compartment, deep layer

20. Mono-axial joints (description, example); deep layer of plantar foot muscles
21. Biaxial joints (description, example); middle layer of plantar foot muscles
22. Tri-axial joints (description, example); diaphragm
23. Articular disc and meniscus – schema, examples; muscles of the hip – posterior group – superficial layer (gluteal muscles)
24. Ball and socket joint (examples); anterior compartment of thigh
25. Temporomandibular joint; deep (intrinsic) muscles of the back – spinotransversal system
26. Joint of head of rib; rectus sheath – schema; linea alba
27. Costotransverse joint; posterior compartment of thigh
28. Intervertebral joint; medial compartment of thigh
29. Sternocostal connections; dorsal foot muscles
30. Long and shorts ligaments of vertebral column; superficial layer of plantar foot muscles
31. Atlanto–occipital joint; anterior group of abdominal muscles
32. Median atlanto–axial joint; lateral group of abdominal muscles
33. Intervertebral discs, shape and movements of vertebral column; hand muscles – thenar muscles
34. Sternoclavicular joint; lateral compartment of forearm muscles
35. Acromioclavicular joint; deep muscles of the back transversospinal system
36. Syndesmoses of shoulder girdle; muscles of the thorax – proper (intrinsic) muscles of the thorax
37. Shoulder joint – articulation surfaces, articulation capsule; inguinal canal
38. Shoulder joint – joint auxiliary equipment, movements; suprahyoid muscles
39. Elbow joint – articulation surfaces, type of joint; infrahyoid muscles
40. Elbow joint – capsule attachment, joint auxiliary equipment, movements; scalene and prevertebral (deep cervical) muscles
41. Radiocarpal joint; posterior group of abdominal muscles
42. Mediocarpal joint; inguinal ligament, vascular and muscular space (lacuna), fascia of abdominal muscles
43. Carpometacarpal joints II–V; back muscles – suboccipital muscles, fascia of back
44. Carpometacarpal joint of thumb; deep muscles of back – spinospinal and sacrospinal system
45. Sacroiliac joint; hand muscles – lumbricals and interossei

46. Syndesmoses of pelvic girdle; the levator scapulae and rhomboids
47. Hip joint – articulation surfaces, articulation capsule; hand muscles – hypothenar muscles
48. Hip joint – joint auxiliary equipment, movements; masticatory muscles, head fascia
49. Knee joint – articulation surfaces, articulation capsule (schema – stratum fibrosum et synoviale); shoulder muscles, fascia
50. Knee joint – joint auxiliary equipment, movements; hand fascia
51. Tibiofibular joint and syndesmosis; arm muscles – anterior group, arm fascia
52. Talocrural joint – articulation surfaces, movements; carpal canal
53. Talocrural joint – collateral ligaments; muscles of the thorax – superficial layer
54. Art. tarsi transversa (Chopart's joint); platysma, m. sternocleidomastoideus, fascia of the neck
55. Tarsometatarsal joint (Lisfranc's joint); facial muscles – muscles around the orbit, the buccinator
56. Arches of the foot – arrangement of the bones and muscular support; facial muscles – muscles around the mouth

Note: It is necessary to know the origin, insertion, innervation and function for each muscle/muscular group.

ALIMENTARY SYSTEM

1. Teeth, general description, dental arches and types of teeth
2. Dental formula of deciduous and permanent teeth, eruption of teeth
3. Oral vestibule: borders, structures, communications with the oral cavity proper
4. Oral cavity proper: borders, structures
5. Tongue: parts and surfaces, vascular supply
6. Tongue: parts and surfaces, innervation
7. Tongue: muscles and innervation
8. Hard palate: components, structures, vascular supply and innervation
9. Soft palate: muscles, vascular supply and innervation
10. Major salivary glands, syntopy and passage of their ducts
11. Salivary glands and their innervation
12. Pharynx: parts, general structure of the wall, syntopy
13. Pharynx: muscles, innervation
14. Oesophagus: wall structure, course, syntopy, constrictions
15. Oesophagus: vascular supply and innervation
16. Stomach: description, wall structure, syntopy
17. Stomach: vascular supply and innervation
18. Small intestine: wall structure, parts, vascular supply
19. Duodenum: parts, course, peritoneal attachments, vascular supply
20. Large intestine: parts, wall structure, peritoneal attachments, vascular supply
21. Ileocaecum: structure, vermiform appendix, peritoneal attachments, vascular supply
22. Rectum: structure, syntopy, vascular supply
23. Liver: external structure, morphologic and structural unit, syntopy
24. Liver: nutritive circulation
25. Liver: functional circulation, portal vein
26. Liver: extrahepatic bile ducts
27. Gallbladder: structure, syntopy, flow of bile

28. Pancreas: structure, syntopy, vascular supply

RESPIRATORY SYSTEM

1. Nose – parts, structure
2. Nasal vestibule
3. Nasal cavity: nasal septum, lateral wall
4. Nasal cavity: middle nasal meatus, openings of paranasal sinuses
5. Paranasal sinuses, openings and its importance
6. Larynx: cartilages
7. Larynx: ligaments and joints
8. Larynx: muscles, functional division
9. Larynx: laryngeal cavity
10. Trachea: structure of the wall, syntopy, primary bronchus, bronchial tree
11. Lungs: outer description, pulmonary lobes, syntopy
12. Root of lung
13. Pleura: description, pleural recesses, parietal and visceral pleural transition
14. Mechanics of inspiration, dominant and auxiliary inspiratory muscles
15. Mechanics of expiration, dominant and auxiliary expiratory muscles

UROGENITAL SYSTEM

1. Kidney, outer description, structure
2. Nephron, blood supply of the kidneys
3. Renal calices, renal pelvis
4. Syntopy of kidneys, coverings and fixation
5. Ureter, course, syntopy, constrictions
6. Urinary bladder, description, syntopy
7. Testis, descent of the testis
8. Epididymis, structure, syntopy
9. Spermatic cord
10. Scrotum, layers of the scrotum
11. Ductus deferens, structure, syntopy
12. Seminal glands
13. Prostate, external and internal structure, syntopy
14. Male urethra
15. Penis, structure
16. Ovary, external structure, vascular supply, syntopy
17. Uterine tube, external structure, vascular supply, syntopy
18. Uterus, external structure (parts), vascular supply
19. Uterus, structure, supporting apparatus
20. Vagina
21. Female urethra
22. Female external genitalia (vulva)
23. Urogenital floor in male, muscles of the external genitals
24. Urogenital floor in female, muscles of the external genitals
25. Pelvic diaphragm

CARDIOVASCULAR SYSTEM

1. General description of the heart, external shape, syntopy
2. Right atrium
3. Right ventricle
4. Left atrium
5. Left ventricle
6. Structure of the heart, heart skeleton
7. Heart valves
8. Conducting system of the heart
9. Heart innervation
10. Coronary arteries
11. Veins of the heart
12. Aorta, parts and course
13. Aortic arch, course and main branches
14. Thoracic aorta, course and main branches
15. External carotid artery, ventral branches
16. External carotid artery, terminal branches
17. External carotid artery, medial and dorsal branches
18. Subclavian artery, course and main branches
19. Axillary artery, course and main branches
20. Brachial artery, course and main branches
21. Main forearm and hand arteries, their course and areas supplied
22. Abdominal aorta, course and main branches
23. Coeliac trunk, main branches, their course and areas supplied
24. Superior mesenteric artery, main branches and areas supplied
25. Inferior mesenteric artery, main branches and areas supplied
26. Common iliac artery, internal iliac artery, course, main branches and areas supplied
27. External iliac artery, femoral artery, course, main branches and areas supplied
28. Popliteal artery, anterior and posterior tibial artery, course and areas supplied

29. Main foot arteries, course and areas supplied
30. Superior vena cava, course and main tributaries
31. Internal jugular vein, course and main tributaries
32. Veins of the brain, dural venous sinuses
33. Subclavian vein, course and main tributaries
34. Deep veins of the upper limb, course and main tributaries
35. Superficial veins of the upper limb, course and main tributaries
36. Inferior vena cava, course and main tributaries
37. Deep veins of the lower limb, course and main tributaries
38. Superficial veins of the lower limb, course and main tributaries
39. Foetal circulation
40. Spleen: structure, vascular supply, syntopy, topography
41. Portal vein, portal circulation and its importance
42. Cavocaval anastomoses
43. Portocaval anastomoses

LYMPHATIC SYSTEM

1. General overview of the lymphatic system (lymph, lymphatic capillaries, vessels, nodes, trunks)
2. Thymus, anatomical structure, syntopy
3. Lymph nodes and vessels of the head
4. Lymph nodes and vessels of the neck
5. Lymph nodes and vessels of the upper limb
6. Lymph nodes and vessels of the thorax
7. Lymph nodes and vessels of the lower limb
8. Lymph nodes and vessels of the abdomen
9. Lymph nodes and vessels of the pelvis
10. Endocrine glands, thyroid gland and parathyroid glands
11. Endocrine glands, adrenal glands
12. Tonsils, Waldeyer's ring

NERVOUS SYSTEM

1. Spinal nerve, dorsal branches of the spinal nerves, intercostal nerves
2. Cervical plexus, main branches and innervation areas
3. Brachial plexus, musculocutaneous nerve – course and areas innervated
4. Brachial plexus, median nerve – course and areas innervated
5. Brachial plexus, ulnar nerve– course and areas innervated
6. Brachial plexus, radial nerve – course and areas innervated
7. Brachial plexus, axillary nerve– course and areas innervated
8. Lumbar plexus, iliohypogastric, ilioinguinal, genitofemoral nerve, course and their areas innervated
9. Lumbar plexus, femoral nerve, obturator nerve, course and their areas innervated
10. Sacral plexus, superior and inferior gluteal nerves, posterior cutaneous nerve of the thigh and their areas innervated
11. Sacral plexus, sciatic nerve, course and its areas innervated (to its main division)
12. Sacral plexus, tibial nerve, course and its areas innervated
13. Sacral plexus, common fibular nerve, course and its areas innervated
14. Sacral plexus, pudendal nerve, course and its areas innervated
15. CN III, IV, VI, course and their areas innervated
16. CN V, ophthalmic nerve, ciliary ganglion, course and their areas innervated
17. CN V, main branches of maxillary nerve, course and their areas innervated
18. Pterygopalatine ganglion, main branches and their areas innervated

19. CN V, maxillary nerve, submandibular ganglion, course, main branches and their areas innervated
20. CN V, mandibular nerve, course, main branches and their areas innervated
21. Otic ganglion, main branches and their areas innervated
22. Submandibular ganglion, main branches and their areas innervated
23. CN VII, ggl. geniculi, course, main branches and their areas innervated
24. CN IX, course, main branches and their areas innervated
25. CN X, course, main branches and their areas innervated
26. CN XI and CN XII, course, main branches and their areas innervated
27. Structure of ANS, Pars cervicalis partis sympathicae
28. Structure of ANS, Pars abdominalis et pelvina partis sympathicae
29. Structure of ANS, heart innervation
30. Pars sacralis partis parasympathicae
31. Spinal cord, surface description (gross anatomy), grey matter
32. Spinal cord, gross anatomy, white matter
33. Medulla oblongata, gross anatomy, grey matter
34. Medulla oblongata, gross anatomy, white matter
35. Pons, gross anatomy, grey matter
36. Pons, gross anatomy, white matter
37. Mesencephalon, gross anatomy, grey matter
38. Mesencephalon, gross anatomy, white matter
39. Reticular formation of the brain stem, general arrangement and function
40. Cerebellum, gross anatomy, principle of the structure arrangement, function
41. Diencephalon, gross anatomy, thalamus, classification of the nuclei according to structure and function
42. Diencephalon, gross anatomy, hypothalamus, nuclei of the anterior hypothalamus

43. Diencephalon, gross anatomy, hypothalamus, nuclei of the middle and posterior hypothalamus
44. Secretory apparatus of the diencephalon, hypothalamo–hypophyseal tract
45. Secretory apparatus of the diencephalon, structural background of the hypophyseal portal system (tubero-hypophyseal tract)
46. Telencephalon, gross anatomy of the hemispheres and cerebral cortex
47. Telencephalon, basal ganglia
48. Telencephalon, structures of the anterior limbic brain
49. White matter of telencephalon, association, commissural and projection fibres
50. White matter of telencephalon, internal capsule
51. Blood supply of CNS, arteries, circle of Willis
52. Blood supply of CNS, venous sinuses and main veins
53. Cerebrospinal fluid, production and circulation
54. Cranial and spinal dura mater
55. Arachnoid and pia mater
56. Organ of smell
57. Organ of vision, fibrous layer of the eyeball
58. Organ of vision, vascular layer of the eyeball
59. Organ of vision, inner layer of the eyeball
60. Content of the eye ball, chambers of the eye and aqueous humour, its formation and circulation
61. Content of the eye ball, lens, suspensory apparatus of the lens
62. Content of the eye ball, vitreous body, vascular supply of the eye
63. Oculomotor muscles and their innervations
64. Eyelids and conjunctiva
65. Lacrimal apparatus
66. External ear and tympanic membrane

67. Tympanic cavity, walls
68. Auditory ossicles and their connections
69. Tympanic cavity, muscles, their function and innervation
70. Eustachian tube, antrum mastoideum, mastoid cells
71. Osseous labyrinth
72. Membranous labyrinth
73. CN VIII

Regional anatomy

1. Regional anatomy of the head

- Reg. frontalis et parietalis (borders and structures)
- Reg. temporalis (fossa temporalis – borders and structures)
- Reg. occipitalis + structure of the calvaria
- Fossae cranii – borders and structures
- Basis cranii interna
- Basis cranii externa
- Orbit – borders
- Orbit – structures
- Osseous background of the nasal cavity
- Nasal cavity + passages and structures
- Oral vestibule (borders and structures)
- Oral cavity proper (borders and structures)
- Reg. parotideomasseterica (borders and structures)
- Reg. infratemporalis (borders and structures)
- Fossa pterygopalatina (schema, borders and structures)

2. Regional anatomy of the neck

- Parapharyngeal space (borders and structures)

- Styloid septum
- Praestyloid space (structures)
- Retrostyloid space (structures)
- Division of the neck regions (triangles)
- Submandibular triangle (borders and structures)
- Carotid triangle (borders and structures)
- Submental and omotracheal triangle (borders and structures)
- Scalenovertebral triangle (fissura scalenorum, borders and structures)
- Lateral cervical region

3. Regional anatomy of the back

- Trigonum suboccipitale (borders and structures)
- Trigonum Petiti et Grynfelti – borders

4. Regional anatomy of the thorax

- Structure of the thoracic wall
- Mammillary region
- Orientation lines on the thorax
- Pericardium
- Mediastinum superius
- Mediastinum posterius
- Mediastinum anterius et medium

5. Regional anatomy of the abdomen

- Division of the abdominal regions (orientation lines)
- Structure of the abdominal wall
- Projections of the organs onto the anterior abdominal wall
- Weakened places of the abdominal wall – reg. umbilicalis
- Inguinal canal
- Supracolic part of the peritoneal cavity
- Infracolic part of the peritoneal cavity
- Retroperitoneal space
- Peritoneum – duplications (folds)

- Peritoneum – recesses

6. Regional anatomy of the pelvis

- Superficial and inner border of the small and large pelvis
- Ischiorectal fossa
- Urogenital region of the male
- Urogenital region of the female
- Anal region
- Infraperitoneal pelvic cavity of the male
- Infraperitoneal pelvic cavity of the female

7. Regional anatomy of the upper limb

- Deltoid region (borders, structures)
- Scapular region (borders, structures)
- Fossa axillaris (borders, structures)
- Foramen humerotricipitale et omotricipitale (borders, structures)
- Anterior brachial region (borders, structures)
- Posterior brachial region (borders, structures)
- Anterior and posterior cubital region (borders, structures)
- Anterior antebrachial region (borders, structures)
- Posterior antebrachial region (borders, structures)
- Carpal tunnel (borders, structures)
- Palm of the hand (borders, structures)
- Dorsum of the hand (borders, structures)
- Hand digits

8. Regional anatomy of the lower limb

- Gluteal region (borders, structures)
- Suprapiriforme and infrapiriforme opening (borders, structures)
- Vascular space/lacuna (borders, structures)
- Muscular space/lacuna (borders, structures)

- Anterior thigh region (borders, structures)
- Posterior thigh region (borders, structures)
- Femoral triangle and iliopectineal fossa (borders, structures)
- Adductor opening/hiatus and canal (borders, structures)
- Popliteal fossa (borders, structures)
- Posterior leg region (borders, structures)
- Lateral retromalleolar region (borders, structures)
- Medial retromalleolar region (borders, structures)
- Dorsum of the foot (borders, structures)
- Sole/planta of the foot (borders, structures)
- Foot digits