

## ANATOMY FINAL EXAM QUESTIONS

### I. Section A – bones, joints and muscles

1. Vertebra – common and different features of all vertebrae (*vertebrae*)
2. Atlas (C1) and axis (C2)
3. Sacrum and coccyx (*os sacrum et os coccygis*)
4. Rib and breast bone (*costa et sternum*)
5. Occipital bone (*os occipitale*)
6. Sphenoid (*os sphenoidale*)
7. Ethmoid (*os ethmoidale*)
8. Temporal bone (*os temporale*)
9. Frontal bone (*os frontale*)
10. Parietal bone (*os parietale*)
11. Nasal bone (*os nasale*), lacrimal bone (*os lacrimale*), vomer
12. Upper jaw (*maxilla*)
13. Palatine bone (*os palatinum*)
14. Mandible (*mandibula*)
15. Zygomatic bone (*os zygomaticum*)
16. Orbit (*orbita*) – skeletal borders
17. Nasal cavity (*cavitas nasi ossea*)
18. Skeletal borders of the temporal fossa (*fossa temporalis*)
19. Skeletal borders of the infratemporal fossa (*fossa infratemporalis*)
20. Skeletal borders of the pterygopalatine fossa (*fossa pterygopalatina*)
21. Newborn skull
22. Clavicle (*clavicula*) and shoulder blade (*scapula*)
23. Arm bone (*humerus*)
24. Radius and ulna
25. Bones of the hand (*ossa manus*)
26. Hip bone (*os coxae*)
27. Thigh bone (*femur*) and knee cap (*patella*)
28. Tibia and fibula
29. Bones of foot (*ossa pedis*)
30. Syndesmosis, synchondrosis, synostosis (description, examples)

31. General description of a synovial joint (*diarthrosis*) and accessory features of synovial joints
32. Division of joints according to the shape of articular surfaces (types, examples)
33. Temporomandibular joint (*art. temporomandibularis*)
34. Connections, shape and movements of the thoracic cage
35. Connections, shape and movements of the vertebral column
36. Atlanto-occipital joint (*art. atlantooccipitalis*)
37. Median and lateral atlanto-axial joints (*artt. atlantoaxialis mediana et laterales*)
38. Joints of the shoulder girdle (syndesmoses of the shoulder blade, acromioclavicular joint, sternoclavicular joint)
39. Shoulder joint (*art. humeri*)
40. Elbow joint (*art. cubiti*)
41. Wrist joint (*art. radiocarpalis*)
42. Joints of the hand
43. Joints of the pelvic girdle (sacro-iliac joint (*art. sacroiliaca*) and syndesmoses of the pelvic girdle)
44. Hip joint (*art. coxae*)
45. Knee joint (*art. genus*)
46. Connections of the tibia and fibula
47. Ankle joint (*art. talocruralis*)
48. Joints of the foot joints
49. Facial muscles (*mm. faciei*): muscles of the cranial vault, muscles around the nose
50. Facial muscles (*mm. faciei*): muscles around the mouth
51. Facial muscles (*mm. faciei*): muscles around the eye and buccinator (*m. buccinator*)
52. Masticatory muscles (*mm. masticatorii*), fasciae of the head
53. Platysma (*platysma*), sternocleidomastoid (*m. sternocleidomastoideus*), neck fascia (*fascia cervicalis*)
54. Suprahyoid muscles (*mm. suprahyoidei*)
55. Infrahyoid muscles (*mm. infrahyoidei*)
56. Scalene muscles (*mm. scaleni*) and prevertebral muscles (*mm. praevertebrales*)
57. Muscles of the thorax: superficial layer (extrinsic / thoraco-humeral muscles)
58. Muscles of the thorax: deep layer (intrinsic muscles of the thorax)
59. Diaphragm (*diaphragma*)
60. Extrinsic back muscles (heterochtonous) – review, function, innervation

61. Intrinsic back muscles (autochthonous) – review of systems, main representatives, function, innervation
62. Muscles of the abdomen (*mm. abdominis*): anterior and posterior group (review, function, innervation)
63. Rectus sheath (*vagina musculi recti abdominis*): diagram; linea alba
64. Muscles of the abdomen (*mm. abdominis*): lateral group (review, function, innervation)
65. Inguinal canal (*canalis inguinalis*)
66. Shoulder muscles (*mm. humeri*) – review, function, innervation
67. Arm muscles (*mm. brachii*) – groups, review, function, innervation
68. Forearm muscles (*mm. antebrachii*) – anterior group, review, function, innervation
69. Forearm muscles (*mm. antebrachii*) – lateral and posterior groups, review, function, innervation
70. Hand muscles (*mm. manus*) – groups, review, function, innervation
71. Hip muscles (*mm. coxae*) – review, function, innervation
72. Thigh muscles (*mm. femoris*) – anterior group (review, function, innervation)
73. Thigh muscles (*mm. femoris*) – posterior group (review, function, innervation)
74. Thigh muscles (*mm. femoris*) – medial group (review, function, innervation)
75. Leg muscles (*mm. cruris*) – anterior and lateral group (review, function, innervation)
76. Leg muscles (*mm. cruris*) – posterior group (review, function, innervation)
77. Foot muscles (*mm. pedis*) – groups, review, function, innervation

## II. Section B – lymphatic and cardiovascular systems, splanchnology

1. Structure of the lymphatic system (lymph, lymph capillaries, lymph vessels, lymph nodes, lymphatic trunks and ducts)
2. Thymus: gross anatomy, structure and syntopy
3. Lymph nodes and vessels of the head
4. Lymph nodes and vessels of the neck
5. Lymph nodes and vessels of the extremities (short review)
6. Lymph nodes and vessels of the thorax
7. Lymph nodes and vessels of the abdomen and pelvis
8. Tonsils, Waldeyer lymphatic circuit
9. Kidney (*ren; nephros*): gross anatomy, coverings, syntopy
10. Renal calices (*calices renales*), renal pelvis (*pelvis renalis*)
11. Ureter, urinary bladder (*vesica urinaria*), female urethra (*urethra feminina*)
12. Testis, epididymis
13. Spermatic cord (*funiculus spermaticus*), ductus deferens, seminal vesicles (*vesiculae seminales*)
14. Prostate (*prostata*), male urethra (*urethra masculina*)
15. Penis, scrotum
16. Ovary (*ovarium*), uterine tube (*tuba uterina*)
17. Uterus, vagina
18. Female external genital organs (*organa genitalia feminina externa*) - review
19. Superficial and deep perineal pouches (muscles of external genitals and *diaphragma urogenitale* )
20. Pelvic diaphragm (*diaphragma pelvis*)
21. Heart (*cor*): gross anatomy, syntopy
22. Heart atria (*atria cordis*)
23. Heart ventricles (*ventriculi cordis*)
24. Cardiac skeleton, cardiac valves
25. Conducting system of the heart (*complexus stimulans cordis*), innervation of the heart
26. Coronary arteries (*arteriae coronariae*), cardiac veins (*venae cardiae*)
27. Aorta, parts and course

28. Aortic arch (*arcus aortae*): course and primary branches and supplied areas
29. Thoracic aorta (*aorta thoracica*): course and primary branches and supplied areas
30. Superior thyroid artery (*arteria thyroidea superior*), lingual artery (*arteria lingualis*) - supplied areas
31. Facial artery (*arteria facialis*) – main branches and supplied areas
32. Maxillary artery (*arteria maxillaris*) – parts, main branches and supplied areas
33. External carotid artery (*arteria carotis externa*): medial and dorsal branches and supplied areas
34. Subclavian artery (*arteria subclavia*): course, primary branches and supplied areas
35. Axillary artery (*arteria axillaris*): course, primary branches and supplied areas
36. Brachial artery (*arteria brachialis*): course, primary branches and supplied areas
37. Main arteries of the forearm and hand (*arteriae antebrachii et manus*): supplied areas
38. Abdominal aorta (*aorta abdominalis*): course and main parietal branches and supplied areas
39. Abdominal aorta (*aorta abdominalis*): main visceral paired branches and supplied areas
40. Abdominal aorta (*aorta abdominalis*): main visceral unpaired branches and supplied areas
41. Common and external iliac arteries (*arteria iliaca communis, arteria iliaca externa*): main branches and supplied areas
42. Internal iliac artery (*arteria iliaca interna*): course, main branches and supplied areas
43. Femoral artery (*arteria femoralis*): courses, main branches and supplied areas
44. Popliteal artery (*arteria poplitea*): main branches and supplied areas
45. Main arteries of the crural regions and foot: their courses and supplied areas
46. Superior vena cava (*vena cava superior*): course and tributaries
47. Internal jugular vein (*vena jugularis interna*): course and main tributaries
48. Dural venous sinuses (*sinus durae matris*) and veins of the brain (*venae cerebri*)
49. Subclavian vein (*vena subclavia*): course and main tributaries
50. Review of veins of the upper extremity
51. Review of veins of the lower extremity
52. Inferior vena cava (*vena cava inferior*): course and main tributaries
53. Fetal circulation
54. Spleen (*lien*): structure, syntopy
55. Veins of the thorax (cavocaval anastomoses)

56. Portocaval anastomoses
57. Oral vestibule (*vestibulum oris*): borders, content, communication with the oral cavity proper
58. Oral cavity proper (*cavum oris proprium*): borders, contents
59. Tongue (*lingua*): gross anatomy, blood supply
60. Tongue (*lingua*): muscles, nerves
61. Hard palate: structure, blood supply and nerves
62. Soft palate: muscles, blood supply and nerves
63. Major salivary glands: syntopy and courses of their ducts
64. Salivary glands: nerves
65. Pharynx: parts
66. Pharynx: muscles, nerves
67. Oesophagus: gross anatomy, parts, physiological constrictions
68. Stomach (*ventriculus, gaster*): gross anatomy, syntopy
69. Small intestine (*intestinum tenue*): gross anatomy, division
70. Duodenum: gross anatomy, syntopy
71. Large intestine (*intestinum crassum*): gross anatomy, parts, syntopy
72. Caecum: appendix (*appendix vermiformis*) (syntopy, projection onto the abdominal wall)
73. Rectum: gross anatomy, syntopy
74. Liver (*hepar*): gross anatomy, syntopy
75. Liver (*hepar*): functional blood supply, portal vein
76. Gallbladder (*vesica biliaris*) and extrahepatic bile ducts
77. Gallbladder (*vesica biliaris*): structure, syntopy, flow of bile
78. Pancreas: gross anatomy, syntopy, function
79. External nose (*nasus externus*) and nasal vestibule (*vestibulum nasi*): gross anatomy
80. Nasal region and cavity (*cavitas nasi*): passages (*meatus nasi*)
81. Larynx: cartilages and their joints
82. Review of laryngeal muscles
83. Larynx: laryngeal cavity, parts
84. Trachea, principal bronchi, arbor bronchialis (description, syntopy)
85. Lungs (*pulmones*): gross anatomy, lobes
86. Pleura: gross anatomy, pleural recesses
87. Main and auxillary muscles of inspiration and expiration

88. Thyroid gland (*glandula thyroidea*) and parathyroid glands (*glandulae parathyroideae*): gross anatomy and syntopy

### III. Section C –CNS, PNS and senses

1. Spinal cord (*medulla spinalis*): gross anatomy and general organization of the grey and white matter
2. Medulla oblongata: gross anatomy and general organization of the grey and white matter
3. Pons: gross anatomy and general organization of the grey and white matter
4. Nuclei of cranial nerves projecting onto the floor of the IV<sup>th</sup> ventricle
5. Midbrain (*mesencephalon*): gross anatomy and general organization of the grey and white matter
6. Reticular formation (*formatio reticularis*) and its function
7. Cerebellum: gross anatomy, principles of its organization

8. Diencephalon: gross anatomy
9. Thalamus: main nuclei and their structural and functional classification
10. Hypothalamus: main groups of nuclei and their functions
11. Neurosecretion in the diencephalon: hypothalamo-hypophysial tract (*tractus hypothalamohypophysialis*)
12. Neurosecretion in the diencephalon: hypophysial portal system
13. Telencephalon: gross anatomy of hemispheres, sulci, gyri
14. Telencephalon: main cortical areas according to their functions
15. Telencephalon: basal ganglia
16. Telencephalon: structures of the limbic brain
17. White matter of the telencephalon (*substantia alba telencephali*): association, commissural and projection fibres
18. White matter of the telencephalon (*substantia alba telencephali*): internal capsule (*capsula interna*)
19. Blood supply of the central nervous system (circuit of Willis - *circulus arteriosus Willisii*, main arteries and their targets)
20. Ventricles of the central nervous system: general description, choroid plexus (*plexus choroideus*), cerebrospinal fluid (*liquor cerebrospinalis*)
21. Fourth ventricle (*ventriculus quartus*): borders
22. Third ventricle (*ventriculus tertius*): borders
23. Lateral ventricles (*ventriculi laterales*): borders
24. Cranial and spinal dura mater (*dura mater encephali et spinalis*): differences
25. Arachnoid mater (*arachnoidea mater*), pia mater, spaces between brain maters
26. Olfactory and gustatory organs (*organum olfactorium et gustatorium*)
27. Eye: fibrous layer of eyeball (*tunica fibrosa bulbi*)
28. Eye: vascular layer of eyeball (*tunica vasculosa bulbi*)
29. Eye: inner layer of eyeball (*tunica interna bulbi*)
30. Optic nerve (*n. opticus*): origin and course
31. Contents of the eyeball: lens, chambers and aqueous humor (*camerae bulbi et humor aquosus*), vitreous body (*corpus vitreum*)
32. Extra-ocular muscles (*mm. externi bulbi oculi*): innervation
33. Eyelids (*palpebrae*) and conjunctiva (*tunica conjunctiva*)
34. Lacrimal apparatus (*apparatus lacrimalis*)
35. External ear (*auris externa*) and tympanic membrane (*membrana tympanica*)



36. Tympanic cavity (*cavitas tympani*): walls
37. Auditory ossicles (*ossicula auditus*) and their joints
38. Tympanic cavity (*cavitas tympani*): muscles, their function and innervation
39. Auditory tube (*tuba auditoria*), mastoid antrum and cells (*antrum et cellulae mastoideae*)
40. Bony labyrinth (*labyrinthus osseus*)
41. Membranous labyrinth (*labyrinthus membranaceus*)
42. Vestibulocochlear nerve (*n. vestibulocochlearis*): origin and course
43. Spinal nerve (*n. spinalis*): dorsal branches of spinal nerves (*rr. dorsales nn. spinalium*), intercostal nerves (*nn. intercostales*)
44. Cervical plexus (*plexus cervicalis*): main branches and their targets
45. Brachial plexus (*plexus brachialis*): origin, division, short review of the nerves of supraclavicular portion
46. Brachial plexus (*plexus brachialis*): lateral cord (*fasciculus lateralis*), list of main nerves and their targets
47. Brachial plexus (*plexus brachialis*): medial cord (*fasciculus medialis*), list of main nerves and their targets
48. Brachial plexus (*plexus brachialis*): posterior cord (*fasciculus posterior*), list of main nerves and their targets
49. Lumbar plexus (*plexus lumbalis*): list of main nerves and their targets
50. Sacral plexus (*plexus sacralis*): list of main nerves and their targets
51. Sciatic nerve (*n. ischiadicus*): main nerves and their targets
52. Oculomotor, trochlear and abducent nerves (*n. oculomotorius, III; n. trochlearis, IV; n. abducens, VI*): courses and targets
53. Ophthalmic nerve (*n. ophthalmicus, V1*): course and targets; ciliary ganglion (*ggl. ciliare*), branches and targets
54. Maxillary nerve (*n. maxillaris, V2*): course, main branches and targets
55. Pterygopalatine ganglion (*ggl. pterygopalatinum*): main branches and targets
56. Submandibular ganglion (*ggl. submandibulare*): main branches and targets
57. Mandibular nerve (*n. mandibularis, V3*): course, main branches and targets
58. Otic ganglion (*ggl. oticum*): main branches and targets
59. Facial nerve (*n. facialis, VII*): course, main branches and targets; geniculate ganglion (*ggl. geniculi*)
60. Glossopharyngeal nerve (*n. glossopharyngeus, IX*): course, main branches and targets

61. Vagus nerve (*n. vagus, X*): course, main branches and targets
62. Accessory nerve (*n. accessorius, XI*) and hypoglossal nerve (*n. hypoglossus, XII*): courses, main branches and targets
63. General structure and divisions of the autonomic nervous system
64. Cervical part of the sympathetic part (*pars cervicalis partis sympathicae*): ganglia, nerves and their targets
65. Thoracic part of the sympathetic part (*pars thoracica partis sympathicae*): ganglia, nerves and their targets, plexuses
67. Abdominal part of the sympathetic part (*pars abdominalis partis sympathicae*): ganglia, nerves and their targets, plexuses
68. Enteric system: structure
69. Autonomic nervous system of the pelvis: plexuses and targets

#### **IV. Section D – regional anatomy**

1. Frontal, parietal, occipital and temporal regions (*reg. frontalis, parietalis, occipitalis et temporalis*)
2. External and internal cranial base (*basis cranii externa et interna*)
3. Infratemporal region (*reg. infratemporalis*)
4. Pterygopalatine fossa (*fossa pterygopalatina*)
5. Orbital region (*reg. orbitalis*) and orbit
6. Nasal region (*reg. nasalis*) and nasal cavity (*cavitas nasi*)
7. Oral region (*reg. oralis*) and oral cavity (*cavitas oris*)
8. Palatine region (*reg. palatina*)
9. Diaphragma oris and sublingual region (*reg. sublingualis*)
10. Parotidomasseteric region (*reg. parotidomasseterica*)
11. Division of neck regions, sternocleidomastoid region (*reg. sternocleidomastoidea*)
12. Submandibular and submental region (*reg. submandibularis et submental*)
13. Carotid triangle (*trigonum caroticum*)

14. Omotracheal triangle (*trigonum omotracheale*)
15. Lateral neck region (*reg. colli laterale*)
16. Scalenovertebral triangle (*trigonum scalenovertebrale*)
17. Division of the thoracic regions, orientation lines on the thorax, structure of the thoracic wall
18. Projection of organs onto the wall of the thorax
19. Mediastinum
20. Abdominal regions, orientation lines and projections of organs onto the anterior abdominal wall
21. Structure of the abdominal wall, weak areas, hernias
22. Peritoneal cavity (*cavitas peritonealis*)
23. Retroperitoneal space (*spatium retroperitoneale*)
24. Regional anatomy of male pelvis
25. Regional anatomy of female pelvis
26. Review of the regional anatomy of the upper extremity
27. Axilla (*fossa axillaris*)
28. Review of the regional anatomy of the lower extremity
29. Femoral triangle (*trigonum femorale*) and popliteal fossa (*fossa poplitea*)