

SYLLABUS

For the Anatomy exam for pharmacy students

Section I

1. Cell – principal structure. Cell membrane. Membrane transport.
2. Cell nucleus in interphase and mitosis.
3. Cytoplasm. Obligatory cell organelles. Cell inclusions.
4. Epithelial tissue.
5. Connective tissue with loose extracellular matrix.
6. Connective tissue with dense extracellular matrix.
7. Blood tissue.
8. Muscle tissue.
9. Nervous tissue.
10. Bones – types, structure. Joints between bones.
11. Bones and joints of the skull, spinal column and thorax.
12. Bones and joints of the upper limb.
13. Bones and joints of the lower limb.
14. Muscles of the head, neck, chest and abdomen.
15. Muscles of the upper limb.
16. Muscles of the lower limb.

Section II

1. Heart.
2. Major (or systematic) circulation. Lesser (or pulmonary) circulation. Types of blood vessels – principal wall structure.
3. The lymphatic system – lymph vessels and lymph organs – lymph nodes.
4. Hematopoietic organs – bone marrow, thymus, spleen, tonsils.
5. Principal structure of a tubular organ. Oral cavity – major salivary glands, teeth, tongue / gustatory bulbs – gustatory sensory system/.
6. Tubular part of the digestive system – pharynx, esophagus, stomach.
7. Tubular part of the digestive system – small intestine, large intestine, appendix.
8. Parenchymal organs of the digestive system – liver and pancreas. Peritoneum.
9. Airway part of the respiratory system – nasal cavity /respiratory and olfactory mucosa/, paranasal sinuses, larynx, trachea and principal bronchi.
10. Lungs – structure. Pulmonary blood circulation. Pleura.
11. Urinary system – principal structure – kidneys, excretory ducts.
12. Male reproductive system – testis, epididymis и accessory ducts.
13. Male reproductive system – prostate gland, seminal vesicles, penis.
14. Female reproductive system – ovary, uterus, uterine tubes – structure. Cyclic alterations in the uterine mucosa.
15. Female reproductive system – vagina, external genital organs. Mammary gland.
16. Endocrine system – principal structure – pituitary gland, pineal gland.

17. Endocrine system – principal structure – thyroid gland, parathyroid glands, suprarenal gland.
18. Spinal cord.
19. Brainstem – medulla oblongata.
20. Brainstem – pons and midbrain.
21. Cerebellum and diencephalon.
22. Cerebrum (forebrain). Cerebral cortex.
23. Cerebrum – white matter. Nuclei.
24. The meninges of the brain. Brain ventricles and cerebrospinal fluid. Blood supply to the CNS.
25. Spinal nerves.
26. Cranial nerves.
27. Autonomic nervous system.
28. Visual organ. The eyeball. Visual sensory system.
29. Auditory and vestibular organ. Auditory-vestibular system.

Recommended literature:

Textbooks:

1. Junqueira, Carneiro. Histology, 13 Edition, Springer, 2013
2. Grey's Anatomy

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Accepted by Department Council 2016r.