

## **Nervous system**

- 1- What is the content of the gray and white matter of the nervous system and what is their distribution in the cerebrum, cerebellum and spinal cord?
2. What glia occur in the central and peripheral nervous system and what is their function? What is the structural nature of the blood-brain barrier and why is this barrier so important?
3. Which layers of the isocortex contain pyramidal neurons and what is their function. What is the function of horizontal cells of Cajal?
4. In what way and by which interneurons are connected Purkinje cells of the cerebellum? What is the function of Purkinje cells?
5. Where in the dorsal spinal cord can you find motor neurons? What types of interneurons occur in the spinal cord?
6. What envelopes protect the CNS organs and what protects axons in the peripheral nerve?
7. What parts does the CNS ventricular system contain? What is the lining of ventricles and what is their content?
8. What chemical substance makes up myelin and what is the significance of myelin. How does myelin loss manifest itself in case of degenerative disease? Give an example of this disease.
9. When does the neural tube close during development and what layers can be distinguished in the wall of this tube (histogenesis)? Which primary and secondary brain vesicles are formed during development of the brain?
10. How does crista neuralis arise and what are its derivatives?

### **List of slides:**

75. Cortex cerebri
76. Cortex cerebri (impregnation)
77. Cerebellum (impregnation)
78. Cerebellum (Nissl substance)
79. Medulla spinalis
80. Plexus choroideus
81. Ganglion spinale
82. Ganglion spinale (impregnation)
83. Autonomic ganglion
84. Peripheral nerve – cross section
85. Peripheral nerve – cross section (myelin)
86. Peripheral nerve – longitudinal section
87. Peripheral nerve – longitudinal section (myelin)