**QUESTIONS FOR THE EXAMINATION OF DISCIPLINE NEUROLOGY, NEUROSURGERY, MEDICAL GENETICS FOR SPECIALTY 31.05.01 CURATIVE AFFAIR**

**GENERAL NEUROLOGY**

1. The history of neurology. The emergence of neurology as a medical specialty. Moscow, Saint-Petersburg and Kazan schools of neurology. A. Y. Kozhevnikov and V. M. Bekhterev –founders of the national neurology. Medical deontology and ethics.
2. Anatomical and physiological characteristics of the central and peripheral nervous system. Age characteristics of the nervous system. Neuron, neuroglia, synapse-structure, functional value, role in norm and pathology. The mechanism of conduction of excitation along the axon, explanationsi current. Hematoencephalic barrier.
3. Voluntary movements and their disorders. The symptoms of lesion of cortical-muscular way at different levels. Central and peripheral paresis. Paraclinic research methods-electromyography, electroneuromyography, magnetic stimulation with the determination of motor potentials, the study of the level of creatine kinasein blood serum, muscle and nerve biopsy.
4. Reflex arc, structure and function. Levels of closure of reflexes in the spinal cord and brain stem, the value in the topical diagnosis.
5. Regulation of muscle tone-spinal reflex arc, gamma system. Suprasegmental levels of regulation of muscle tone. Studies of the muscle tone.
6. Extrapyramidal system, role in the organization of movements. Neurophysiological and neurochemical mechanisms of regulation of the extrapyramidal system, the main neurotransmitters.
7. Semiotics of lesion of extrapyramidal system. Neuropathophysiology of extrapyramidal motor disorders, methods of pharmacological correction.
8. Cerebellum and vestibular system, anatomy and physiology. Semiotics of defeat.
9. Coordination of movements and its disorders, clinical research methods. Types of ataxias-vestibular, frontal, sensitive. Pharmacological methods of correction.
10. Sensitivity-types of sensitivity conducting paths. Types of sensitivity disorders, types of sensitivity disorders.
11. Central and peripheral mechanisms of pain. Acute and chronic pain. The Central pain. Reflected pain. Antinociceptive system. Paraclinic research methods-electroneuromyography, somatosensory evoked potentials.
12. The spinal cord and peripheral nervous system. Anatomy and physiology. Paraclinical research methods: MRI and CT of the spine, electroneuromyography.
13. Semiotics of spinal cord segments damage at different levels, anterior and posterior roots, plexuses, peripheral nerves. Syndrome Brown-Sekara. Syringomyelia syndrome.
14. The structure of the brain stem. Semiotics of his defeat at various levels. Alternating syndromes.
15. 1 pair of cranial nerves and the olfactory system. Semiotics of defeat.
16. 2 pair of cranial nerves and the visual system. Semiotics of defeat at different levels. Neuro-ophthalmologic and laboratory methods of research of the visual system (fundus examination, visual evoked potentials).
17. 3,4,6 pairs of cranial nerves and oculomotor system. Semiotics of defeat. The medial longitudinal bundle. The regulation of gaze.
18. 5 pair of cranial nerves. Semiotics of defeat.
19. 7 pair of cranial nerves. Clinic lesions of the facial nerve at various levels. Taste and it,s disorders.
20. 8 pair cranial nerves, auditory and vestibular systems. Semiotics of defeat. Otoneurological methods of examination of vestibular function.
21. 9.10 pairs of cranial nerves. Semiotics of defeat at various levels. Bulbar and pseudobulbar syndromes.
22. 11 pairs of cranial nerves. Semiotics of defeat.
23. 12 pairs of cranial nerves. Semiotics of defeat at various levels.
24. Structure and functions of the autonomic nervous system.
25. Suprasegmental apparatus of the autonomic nervous system. Semiotics of defeat.
26. Anatomical and physiological basis of the regulation of consciousness, wakefulness, sleep. Forms of consciousness disorders-deafness, SOPOR, coma, akinetic mutism. Disorders of sleep and wakefulness. The principles of therapy.
27. Destructive and metabolic coma. Chronic vegetative state, brain death. Electrophysiological methods – EEG, evoked potentials of the brain. Principles of management of patients in coma.
28. Segmental apparatus of the autonomic nervous system. Semiotics of defeat.
29. Physiology of arbitrary control of bladder functions. Neurogenic bladder, urinary retention and incontinence, imperative urge to urinate. Instrumental and medicinal correction of neurogenic bladder.
30. The lining of the brain. Cerebrospinal fluid. The study of cerebrospinal fluid.
31. Hypertension syndrome. Dislocation syndrome. Hydrocephalus congenital and acquired, open and occlusive, medical tactics.
32. Syndrome lesions of the frontal, parietal, temporal and occipital lobes of the brain.

**PRIVATE NEUROLOGY**

1. Blood supply of the brain. Semiotics lesions of individual vascular basins.
2. Classification of vascular diseases of the brain. Etiology of vascular diseases of the brain.
3. Classification of vascular diseases of the brain. Acute disorders of cerebral circulation.
4. Chronic disorders of cerebral circulation. Neuro-visualization methods of research. Vascular dementia. The differential diagnosis of Alzheimer's disease.
5. Basic and differentiated therapy of strokes.
6. Blood supply to the spinal cord. Violations of the spinal circulation.
7. Classification of diseases of the peripheral nervous system. Mononeuropathy and polyneuropathy. Etiology, pathogenesis, clinic, diagnostics, treatment.
8. Neuropathy of the median, ulnar, radial, peroneal, and tibial nerves. Tunnel syndrome, conservative therapy and indications for surgical treatment.
9. Neuropathy of the facial nerve. Trigeminal neuralgia. Clinic, diagnostics, treatment.
10. Vertebrogenic lesions of the nervous system. Classification, etiology, pathogenesis, stages, clinical and pathogenetic forms of neurological manifestations in spinal osteochondrosis. Neurovisualization methods-spondylography, CT, MRI of the spine.
11. Reflex syndromes in vertebrogenic lesions of the nervous system. Pathogenesis, clinic, diagnostics, treatment.
12. Radicular syndromes of vertebrogenic lesions of the nervous system. Pathogenesis, clinic, diagnostics, treatment.
13. Vascular and vascular radicular-spinal syndromes of vertebrogenic lesions of the nervous system. Pathogenesis, clinic, diagnostics, treatment.
14. Infectious diseases of the nervous system. Classification. The diagnostic algorithm.
15. Purulent meningitis-primary and secondary. Etiology, clinic, diagnostics, treatment.
16. Serous meningitis-primary and secondary. Etiology, clinic, diagnostics, treatment.
17. Encephalitis-primary and secondary. Etiology, clinic, diagnostics, treatment.
18. Polio. The features of the modern currents of polio. Polio-like diseases.
19. Damage to the nervous system in diphtheria, botulism. Neurosyphilis. Neurospin.
20. Demyelinating diseases of the nervous system. Myelinopathy, myelinoclastic. Sclerosis. Pathogenesis. Clinic. Diagnostics. Treatment.
21. Laboratory methods in the diagnosis of infectious diseases of the nervous system – liquorologic and serology. CT and MRI of the brain.
22. Epilepsy. Classification of epilepsy and epileptic seizures. Clinic. Diagnostics. Treatment.
23. Epileptic status. Etiology, clinic, diagnostics, treatment.
24. Paraclinical methods in the diagnosis of paroxysmal disorders of consciousness-electroencephalography, CT and MRI of the brain.
25. Neuroses. Etiology, pathogenesis, classification, clinic, diagnosis, treatment.
26. Vegetative dystonia. Etiology, pathogenesis, clinic, treatment.
27. Migraine. Beam headache. Tension headache. Ubusuna headache. Etiology, clinic, diagnostics, treatment.
28. Progressive muscular dystrophy. Myopathy Duchenne, Becker, Landouzy-Dejerine. Clinic, diagnostics, differential diagnostics, medico-genetic aspects.
29. Myasthenia. Pathogenesis, clinic, diagnostics, treatment.
30. Myasthenic crisis-causes, clinic, diagnostics, treatment. Cholinergic crisis-causes, clinic, diagnosis, treatment.
31. Thomsen myotonia and dystrophic myotonia –clinic, diagnostics,prognosis.
32. Paraclinic methods in the diagnosis of neuromuscular diseases-electroneuromyography, muscle biopsy, examination of CFC in blood serum, DNA research.
33. Degenerative diseases of the nervous system. Syringomyelia. Etiology, clinic, diagnosis, prognosis.
34. Hereditary diseases of the nervous system with a predominant lesion of the extrapyramidal system. Parkinson's disease and parkinsonism. Small chorea. chorea. Hereditary torsion dystonia. Hepatolenticular degeneration.
35. Hereditary diseases of the nervous system with a predominant lesion of the spinal cord, cerebellum. Family spastic paraplegia. Cerebellar degeneration.
36. Alzheimer. Clinic, diagnosis, prognosis.
37. Amyotrophic lateral sclerosis. Clinic, diagnosis, prognosis.
38. Vibration disease. Decompression sickness. Neurological complications of mercury, lead, manganese, carbon dioxide, arsenic poisoning. Damage to the nervous system with high frequency currents.
39. Changes in the nervous system in elderly and senile age. Peculiarities of examination and treatment of patients neiropediatricescoy. Fall syndrome.