

Neurology exam: list of questions

A. General Neurology

1. Motor system (anatomy, function, classification of disorders, types of pareses)
2. Somato-sensory system (anatomy, function, classification of disorders) – (except pain)
3. Pain (anatomy, characteristics, types of pain)
4. Peripheral nervous system (anatomy, function, classification of disorders, localisation of lesions)
5. Muscle (anatomy, physiology, pathophysiology, types of disorders, gamma-loop)
6. Cranial nerves I-II (anatomy, function, signs and symptoms of lesion)
7. Cranial nerves III, IV, VI (anatomy, function, signs and symptoms of lesion)
8. Cranial nerve V (anatomy, function, signs and symptoms of lesion)
9. Cranial nerve VII (anatomy, function, signs and symptoms of lesion)
10. Cranial nerve VIII, vestibular syndrome (anatomy, function, signs and symptoms of lesion)
11. Cranial nerves IX-XII (anatomy, function, signs and symptoms of lesion)
12. Speech and language disorders (aphasia, aphonia, dysarthria, agraphia, alexia)
13. Disorders of other symbolic functions (apraxia, agnosia, Gerstmann syndrome)
14. Intracranial hypertension, hypotension (symptoms, causes of disorders)
15. Meningeal syndrome (symptoms, causes of disorders)
16. Autonomic nervous system and its disorders
17. Focal brain syndromes (frontal, pericentral, temporal, parietal, occipital, internal capsule, thalamic)
18. Spinal cord lesion syndromes (hemisection, transversal lesion, central gray matter syndrome, posterior and lateral funicular syndromes)
19. Brainstem lesion syndromes (bulbar/pseudobulbar syndrome, Wallenberg syndrome, alternating hemipareses, locked-in syndrome, ponto-cerebellar angle syndrome)
20. Cerebellum (anatomy, function, pathophysiology, cerebellar syndromes)
21. Disorders of consciousness – classification, causes
22. Coma (Glasgow coma scale, clinical evaluation), brain death
23. Delirium
24. Involuntary abnormal movements (tremor, chorea, myoclonus, tics, dystonia)
25. Neurological examination of newborns, infants and children
26. Spine examination
27. Segmental, pseudo-radicular and radicular (C6-8, L3-5, S1) syndromes
28. Epiconus, conus and cauda equina syndrome
29. X-ray, DSA (digital subtraction angiography) and CT in neurology
30. MRI in neurology
31. Sonography, SPECT and PET in neurology
32. EMG and evoked potentials in neurology
33. EEG in neurology
34. Cerebrospinal fluid examination. Lumbar puncture

B. Special Neurology

1. Epilepsy: types of epileptic seizures, epileptic syndromes - definition, classification, etiology
2. Epilepsy: diagnosis, semiology, psychogenic nonepileptic seizures
3. Epilepsy in children including febrile seizures; differential diagnosis
4. Epilepsy: treatment including surgery
5. Status epilepticus (types, diagnosis, treatment)
6. Syncope and differential diagnosis of paroxysmal disorders
7. Sleep disorders (sleep apnea syndrome, parasomnias, insomnia, narcolepsy, hypersomnia)
8. Cerebrovascular diseases (classification)
9. Ischemic stroke (classification, etiology, syndromes of occlusion of cerebral arteries)
10. Intracerebral haemorrhage (etiology, treatment)
11. Subarachnoid haemorrhage (etiology, treatment)
12. Cerebral venous thrombosis
13. Treatment of cerebrovascular diseases (acute, secondary prevention, surgery)
14. Back pain syndromes: acute, chronic, neck pain, thoracic pain, low back pain - diagnosis, symptomatology
15. Spondylogenic radiculopathies and myelopathies: diagnosis, symptomatology
16. Treatment of back pain syndromes (pharmacologic, physiotherapy, surgery)
17. Traumatic lesions of the brain - classification
18. Comotio cerebri (cerebral concussion) and contusio cerebri (cerebral contusion)
19. Intracranial traumatic haemorrhage (epidural, subdural, cerebral)
20. Traumatic injuries of the spine and spinal cord
21. Consequences of head and spine injuries
22. Neuropathies (definition, classification, etiology)
23. Polyneuropathies (causes, diagnosis, treatment)
24. Inflammatory and dysimmune neuropathies (AIDP - Guillain-Barré syndrome, CIDP, AMAN, MMN)
25. Mononeuropathies - lesions of the median, ulnar and radial nerves
26. Mononeuropathies - lesions of the ischiadic, peroneal and tibial nerves

27. Plexopathies - lesions of the brachial and lumbosacral plexuses
28. Amyotrophic lateral sclerosis and other motor neuron diseases (spinal muscular atrophy, ALS syndromes and variants)
29. Bacterial meningitis and brain abscess, including tuberculosis
30. Neurosyphilis, Lyme disease
31. Viral meningitis, encephalitis and myelitis, including HIV infection (AIDS)
32. Prion diseases: Jakob-Creutzfeldt disease, others (new variant JCD, Gerstmann-Straussler-Scheinker disease)
33. Tumours of the brain (definition, classification, clinical signs and symptoms)
34. Tumours of the brain (diagnosis, types, treatment)
35. Intraspinal tumours (diagnosis, types, treatment)
36. Metastatic intracranial and intraspinal tumours
37. Headache (definition, classification)
38. Migraine, cluster headache
39. Trigeminal and glossopharyngeal neuralgias
40. Multiple sclerosis - diagnosis, symptomatology, types, treatment
41. Parkinson's disease - diagnosis, clinical characteristics, treatment
42. Parkinsonian syndromes (vascular, MSA, PSP, CBD)
43. Tremor – differential diagnosis
44. Dystonias
45. Chorea - differential diagnosis
46. Myoclonus and tics - differential diagnosis
47. Muscular dystrophies
48. Myasthenia gravis, Lambert-Eaton syndrome
49. Inflammatory myopathies (polymyositis, dermatomyositis, inclusion body myositis)
50. Metabolic disorders of nervous system (hepatal, renal impairment, hypoxic encephalopathy, endocrinopathies)
51. Disorders of CNS in system autoimmune diseases (vasculitis, SLE, Wegener granulomatosis)
52. Toxic and nutritional disorders of nervous system (associated with vitamins deficiency or excess – B1, B2, B12; ethanol, Wernicke's encephalopathy, central pontine myelinolysis)
53. Disorders of the autonomic nervous system
54. Dementia – definition, classification, diagnosis
55. Alzheimer's disease
56. Other dementias (vascular, fronto-temporal dementia, Lewy-body disease)
57. Wilson's disease, spinocerebellar ataxias
58. Hydrocephalus (types, diagnosis, treatment), BIH (benign intracranial hypertension)
59. Cerebral palsy
60. Neurological paraneoplastic syndromes, autoimmune non-paraneoplastic encephalitis (anti NMDA, anti LGI1)