

1. Deep sensory (sensation). Dorsal column pathways. Symptoms of lesion.
2. Superficial sensory (spinothalamic) tract of pain, touch and temperature. Symptoms of lesion.
3. Cortico-spinal pyramidal tract. Symptoms of lesion on different levels.
4. Upper motor neuron weakness. Clinical characteristics.
5. Lower motor neurons weakness. Clinical signs.
6. Grey matter of spinal cord. Symptoms of lesion (anterior and posterior horns) on different levels.
7. Spinal cord. Symptoms of lesion on different levels.
8. Capsula interna and signs of its alteration. Thalamus opticus pathology.
9. Midbrain. Symptoms of lesion.
10. Pons Varolii. Symptoms of lesion.
11. Medulla oblongata. Symptoms of lesion. Bulbar and pseudobulbar palsy.
12. Gaze Innervations. Oculomotor, trochlear and abducens nerves. Symptoms of lesion.
13. Alternating paralysis and their topico-diagnostic value.
14. Parietal and occipital lobes. Anatomy, function and symptoms of lesion.
15. Facial nerve. Symptoms of lesion. Bell's palsy.
16. Extrapyramidal system: basal ganglia. Symptoms of lesion (Parkinson's syndrome and Superficial sensory (spinothalamic) tract of pain, touch and temperature. Symptoms of lesion.
17. Cerebellum. Function, anatomy and symptoms of lesion.
18. Autonomic nervous system. Anatomy, functions and disorder.
19. Control of bladder and bowel function. Types of pathology.
20. Meninges of brain and spinal cord. Meningeal syndrome and raised intracranial pressure syndrome.

21. Examination of deep sensation (vibration, joint position).
22. Examination of active movements of extremities.
23. Examination of tendon reflexes of lower extremities (knee, ankle, jerks).
24. Examination of tendon reflexes of upper extremities (biceps, triceps jerks).
25. Examination of superficial reflexes (abdominal: upper, middle, lower; plantar).
26. Examination of periosteal reflexes (jaw, supraorbital, supinator jerks).
27. Gait examination.
28. Examination of functions of trigeminal nerve.
29. Examination of functions of facial nerve.
30. Examination of reactions to accommodation and convergence.
31. Examination of active movement of eye.
32. VI cranio-cerebral nerves examination .
33. Examination of gag reflex.
34. Examination of functions of: IX, X, XI, XII (bulbar group) nerves.
35. Accessory nerve functions examination.
36. Examination of stereognosis.
37. Examination of muscle tone of extremities.
38. Praxis examination.
39. Examination of Lasegue's sign and femoral stretch.
40. Examination of visual fields.
41. Speech examination.
42. Aphasia (disorder of speech). Wernicke's aphasia and Broca's aphasia. Topical diagnosis.
43. Agnosia. Apraxia. Types. Topical diagnosis.
44. Meningeal symptoms examination (neck stiffness, Kernig, Brudzinski sign's).

45. CSF analysis.
46. Glasgow coma scale (GCS).
47. Varicella-zoster infections. Pathogenesis, clinical features, treatment.
48. Viral infections. Etiology, pathogenesis, clinical features, treatment, prophylaxis.
49. Upper limb mononeuropathies. Etiology, pathogenesis, clinical features and treatment.
50. Lower back pain, lumbar radiculopathies, prolapse of lumbar vertebral disc. Etiology, pathogenesis, clinical features.
51. Lower limb mono-neuropathies. Etiology, pathogenesis, clinical features and treatment.
52. Progressive muscular dystrophies. Etiology, pathogenesis, clinical features and treatment.
53. Neuro-AIDS. Etiology, pathogenesis, clinical features, treatment, prophylaxis and differential diagnosis.
54. Multiple sclerosis. Etiology, pathogenesis, clinical features, treatment.
55. Myasthenia gravis. Etiology, pathogenesis, clinical features, treatment.
56. Myasthenia: clinic, diagnosis, treatment.
57. Peripheral nervous system. Roots of the spinal cord (anterior and posterior). Plexuses (cervical, brachial, lumbar). Disorder of nerve roots and peripheral nerves.
58. Poliomyelitis. Etiology, pathogenesis, clinical features, prophylaxis and treatment.
59. Polyneuropathy: etiology, pathogenesis, clinic, treatment, prevention.
60. Epilepsy. Etiology, pathogenesis, clinical features and treatment.
61. Epilepsy: classification, etiology, clinic, treatment.
62. Epileptic status: clinic, diagnosis, treatment.
63. Extra-pyramidal system diseases: Parkinson diseases,, Huntington's chorea.
64. Ischaemic stroke. Types (embolism and thrombosis). Etiology, pathogenesis, clinical features, treatment and differential diagnosis.
65. Neurostomatologic diseases and syndromes: neuralgia of the trigeminal and glossopharyngeal nerves.
66. Bell's palsy. Aetiology, pathogenesis, clinical features, treatment.
67. Acute inflammatory postinfectious polyneuropathy (Guillain-Barre syndrom). Etiology, pathogenesis, clinical features and treatment.
68. Meningococcal meningitis. Etiology, pathogenesis, clinical features, treatment, prevention and differential diagnosis.
69. Spinal trauma. Clinic, diagnosis, surgical treatment.
70. Spinal cord tumors. The classification. Clinic, diagnosis, treatment.
71. Brain contusion. Clinic, diagnosis, treatment.
72. Brain concussion. Clinic, diagnosis, treatment.
73. Subdural haematoma. Clinic, diagnosis, treatment.
74. Epidural haematoma. Clinic, diagnosis, treatment.
75. Closed head injury (trauma). Types of the skull and brain traumatic injuries.
76. Open head injury (trauma). Clinic, diagnosis, emergency care.
77. Gunshot head injuries.
78. Brain tumors. Classification, clinic, diagnosis, treatment.
79. Intracerebral hemorrhage. Etiology, pathogenesis, clinical features, treatment and differential
80. Intracranial haematomas peculiarities. Clinic, diagnosis, treatment.
81. Subarachnoid hemorrhage. Etiology, pathogenesis, clinical features, treatment and differential diagnosis.