

**DETAILED SYLLABUS FOR THE POST OF ASSISTANT PROFESSOR IN
NEUROLOGY IN MEDICAL EDUCATION- DIRECT RECRUITMENT**

(Cat.Nos: 336/2023, 380/2023)

Topics and marks distribution.

1. Neuroanatomy: 3 marks
2. Localization in clinical Neurology: 14 marks
3. Investigations in Neurology: 8 marks
4. Vascular diseases of the nervous system: 5 marks
5. Infections of the nervous system: 5 marks
6. Demyelinating disorders of the nervous system: 5 marks
7. Autoimmune and paraneoplastic encephalitis: 5 marks
8. Dementias: 5 marks
9. Epilepsies: 5 marks
10. Movement disorders: 5 marks
11. Sleep disorders: 5 marks
12. Cerebellar disorders: 5 marks
13. Disorders of upper motor neurons and anterior horn cells: 5 marks
14. Disorders of the peripheral nerves: 5 marks
15. Disorders of the neuromuscular junction: 5 marks
16. Disorders of the muscle: 5 marks
17. Headache and craniofacial pain: 5 marks
18. Pediatric Neurology: 5 marks

1. Neuroanatomy: 3 marks.

Meninges and CSF circulation; gross anatomy of brain; spinal cord, medulla, pons, mesencephalon, cerebellum, diencephalon, hypothalamus, corpus striatum and related nuclei, olfactory pathways, limbic system, blood supply of brain and spinal cord

2. Localization in clinical Neurology: 14 marks.

- a. Localization of disorders affecting the peripheral nerves, roots, plexus and spinal cord: 5 marks
- b. Localization of disorders affecting the cranial nerves, brainstem, cerebellum, thalamus and basal ganglia: 5 marks
- c. Localization of disorders affecting the cerebral cortex: 4 marks

3. Investigations in Neurology: 8 marks

- a. Imaging modalities: CT, MRI, ultrasound and transcranial doppler: 2 marks
- b. EEG: normal EEG in wakefulness and sleep; artifacts, EEG in epilepsies and encephalopathies, periodic complexes: 2 marks
- c. Nerve conduction studies (NCS) and Electromyography (EMG): normal nerve conduction study and EMG; F wave and H wave studies; NCS in entrapment neuropathies and peripheral neuropathies; normal EMG, spontaneous activity and recruitment patterns: 2 marks
- d. Evoked potentials: Normal and abnormal visual evoked potential (VEP), brainstem auditory evoked potentials and somatosensory evoked potentials: 2 marks

4. Vascular disorders of the nervous system: 5 marks

Diagnosis and management of acute ischemic stroke, secondary prevention of stroke, intracerebral hemorrhage, subarachnoid hemorrhage, pediatric strokes, rare causes of stroke

5. Infections of the nervous system: 5 marks

Diagnosis and management of viral, bacterial and tuberculous meningitis; chronic meningitis, viral encephalitis, fungal and parasitic infections; neurologic manifestations of HIV infection

6. Demyelinating disorders of the nervous system: 5 marks

Clinical features, diagnosis and treatment of Multiple sclerosis, ADEM, acute hemorrhagic leukoencephalitis, NMO and MOGAD

7. Autoimmune and paraneoplastic encephalitis: 5 marks

Clinical features, diagnosis and treatment of autoimmune and paraneoplastic encephalitis

8. Dementias: 5 marks

Clinical features diagnosis and treatment of Alzheimer dementia, vascular dementia, frontotemporal dementia, dementia with Lewy body, treatable dementias

9. Epilepsies: 5 marks

Clinical features, diagnosis and treatment of pediatric and adult epilepsies; refractory epilepsy, epilepsy surgery, anti-seizure medications

10. Movement disorders: 5 marks

Clinical features, diagnosis and treatment of Parkinson disease, Parkinson plus syndromes; hyperkinetic movement disorders; deep brain stimulation (DBS)

11. Sleep disorders: 5 marks

Polysomnography; Diagnosis and treatment of insomnia; narcolepsy; sleep apnea syndrome; restless leg syndrome; NREM and REM parasomnias

12. Cerebellar disorders: 5 marks

Diagnosis and treatment of Friedreich's ataxia, ataxia telangiectasia, spinocerebellar ataxias and treatable ataxias

13. Disorders of upper motor neurons and anterior horn cell diseases: 5 marks

Diagnosis and treatment of Motor neuron disease; hereditary spastic paraplegia; Kennedy disease; spinal muscular atrophy.

14. Disorders of peripheral nerves: 5 marks

Diagnosis and treatment of diabetic neuropathy, AIDP and CIDP, vasculitic neuropathies, alcoholic neuropathy; drug induced neuropathies; neuropathies associated with infections; drug induced neuropathies and hereditary neuropathies

15. Disorders of neuromuscular junction: 5 marks

Diagnosis and treatment of myasthenia gravis, LEMS, botulism and congenital myasthenic syndromes

16. Disorders of the muscle: 5 marks

Diagnosis and treatment of muscular dystrophies; inflammatory myopathies; endocrine and toxic myopathies; metabolic myopathies and congenital myopathies.

17. Headache and craniofacial pain: 5 marks

Diagnosis and treatment of migraine; cluster headache; trigeminal neuralgia and trigeminal autonomic cephalalgias

18. Paediatric Neurology: 5 marks

Normal developmental milestones; floppy infant; gray matter and white matter degenerations

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper.