

August 2009

[KV 003]

Sub. Code: 1103

D.M. DEGREE EXAMINATION

(Super Specialities)

Branch I –Neurology

(Revised Regulations)

(Candidates admitted from 2006-2007 onwards)

Paper IV– RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161103

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Discuss the role of stem cell therapy in neurology.
2. Recent advances in the management of Parkinson's disease.

II. Write short notes on:

10 x 6 = 60

1. Restless leg syndrome.
2. Cluster headache.
3. Carotid endarterectomy.
4. IVIG in neurological disorders.
5. Non-convulsive status epilepticus.
6. New variant CJD.
7. Narcolepsy.
8. Megalencephalic leukodystrophy.
9. Paroxysmal dyskinesias.
10. Channelopathies.

February 2010

[KW 003]

Sub. Code: 1414

D.M. DEGREE EXAMINATION

(Super Specialities)

Branch I –Neurology

(Revised Regulations)

(2006-07 Regulations)

Paper III/IV– RECENT ADVANCES IN NEUROLOGY

**Common to (Candidates admitted up to 2005-2006 and Candidates
admitted from 2006-2007 onwards)**

Q.P. Code: 161414

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Discuss management strategy for a patient within first six hours of stroke arriving in emergency room.
2. Discuss various mitochondrial disorders affecting nervous system.

II. Write short notes on:

10 x 6 = 60

1. Pharmacogenomics.
2. Intrathecal baclofen pump.
3. Anti oxidants in neurology.
4. Modafinil.
5. Therapeutic transcranial magnetic stimulation.
6. Minimal cognitive impairment.
7. Inclusion body myositis.
8. Cerebral amyloid angiopathy.
9. Hashimoto's encephalopathy.
10. Non-motor symptoms in Parkinsonism.

August 2011

[KZ 003]

Sub. Code: 1414

**DOCTORATE OF MEDICINE (D.M.) DEGREE EXAMINATION
(SUPER SPECIALITIES)**

BRANCH I – NEUROLOGY

RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Discuss the various newer antiepileptic drugs and Management of status epilepticus.	11	35	15
2. Discuss the etiology, pathogenesis and management of Inflammatory muscle diseases.	11	35	15

II. Write notes on :

1. Nerve growth factors.	4	10	7
2. Tropical ataxic neuropathy.	4	10	7
3. Chronic fatigue syndrome.	4	10	7
4. Gene therapy in Neurological diseases.	4	10	7
5. Antiphospholipid antibody syndrome.	4	10	7
6. Fatal familial insomnia.	4	10	7
7. Levetiracetam.	4	10	7
8. Botox toxin therapy.	4	10	7
9. Neuromyelitis optica.	4	10	7
10. Recent advances in treatment of Moya Moya disease.	4	10	7

[LB 003]

AUGUST 2012

Sub. Code: 1414

D.M – NEUROLOGY

Paper – IV RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: 3 hours
(180 Min)

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on:

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Discuss the current concepts in the etiology, immunopathology clinical features, investigations and management of Multiple Sclerosis.	16	35	15
2. Write an account of Botulinum Toxin and describe in detail the use of Botulinum Toxin in Neurologic disorders.	16	35	15

II. Write notes on:

1. Gene Therapy in Neurologic diseases.	4	10	7
2. Clinical features and diagnosis of Creutzfeldt-Jakob Disease.	4	10	7
3. Role of Triptans in Migraine management.	4	10	7
4. Clinical features of Balint's syndrome.	4	10	7
5. Diagnosis and treatment of Nonconvulsive Status Epilepticus.	4	10	7
6. Plasmapheresis and its role in neurological disorders.	4	10	7
7. Clinical features and diagnosis of Leigh's Disease.	4	10	7
8. Role of Endovascular therapy in Acute Ischemic Stroke.	4	10	7
9. Sympathetic Apraxia and its clinical significance.	4	10	7
10. Clinical features and treatment of Restless Legs Syndrome.	4	10	7

(LD 003)

AUGUST 2013

Sub. Code:1414

D.M. – NEUROLOGY
Paper – IV RECENT ADVANCES IN NEUROLOGY
Q.P.Code: 161414

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Discuss the genetics, pathophysiology and management of channelopathies.
2. Recent concepts in the reperfusion therapy of stroke.

II. Write notes on:

(10X7=70)

1. Myotonic dystrophy.
2. Somato sensory evoked potential.
3. Idiopathic intracranial hypertension.
4. Transcranial Doppler.
5. Chronic fatigue syndrome.
6. Nystagmography.
7. Computerised tomogram- Cisternography.
8. Complicated migraine.
9. Neurogenic pulmonary edema.
10. Neurological complications of anesthesia.

(LF 003)

AUGUST 2014

Sub. Code:1414

D.M. – NEUROLOGY
Paper – IV RECENT ADVANCES IN NEUROLOGY
Q.P.Code: 161414

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Discuss natural history and neurological manifestations of Acquired immunodeficiency syndrome.
2. Discuss the role of MRI in the evaluation of various toxic and metabolic disorders of the nervous system.

II. Write notes on:

(10X7=70)

1. Pharmacogenomics.
2. Biomarkers in Stroke.
3. Modafinil.
4. Cognitive impairment in Multiple sclerosis.
5. Epileptic encephalopathy of childhood.
6. Tumefactive demyelination.
7. Cerebral microbleeds.
8. Neurological manifestations of Sjogren syndrome.
9. Stem cell therapy in Neurology.
10. Primary progressive aphasia.

(LH 003)

AUGUST 2015

Sub. Code:1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P.Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Critically evaluate the drug trials in multiple sclerosis.
2. Trans cranial magnetic stimulation in neurological disorders.

II. Write notes on:

(10 x 7 = 70)

1. Perception of pain.
2. Gene therapy in neurology.
3. Trinucleotide repeat neurological disorders.
4. ECG changes in acute stroke.
5. Management of Carotid artery disease.
6. Venous strokes.
7. Brain death.
8. Memantine.
9. Neurological disorders associated with retinitis pigmentosa.
10. Cerebellar functional rehabilitation.

(LJ 003)

AUGUST 2016

Sub. Code:1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P.Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Inflammatory myopathies and treatment.
2. Movement disorder emergencies and treatment.

II. Write notes on:

(10 x 7 = 70)

1. Posterior reversible encephalopathy syndrome.
2. Vitamin D₃ in neurology.
3. Carotid artery dissection.
4. Cadasil.
5. Free radicals.
6. Cardiac encephalopathy.
7. Antiphospholipid antibody syndrome.
8. Nummular headache.
9. Optical coherence tomography in neurology.
10. Reversible cerebral vasoconstriction syndrome.

(LK 003)

FEBRUARY 2017

Sub. Code:1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P.Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss various paraneoplastic disorders affecting the peripheral nervous system.
2. Discuss recent advances in the evaluation and understanding of dementia.

II. Write notes on:

(10 x 7 = 70)

1. Gamma Knife.
2. Multiphasic or relapsing acute disseminated encephalomyelitis (ADEM).
3. Protein aggregate myopathies.
4. Therapeutic use of repetitive trans-cranial magnetic stimulation.
5. Full band electroencephalography.
6. Proteomics in the diagnosis of neurological disorders.
7. Dural sinus stenting in multiple sclerosis.
8. Inherited disorders of neurotransmitters in children.
9. Heparinoids in neurology.
10. Ribavirin.

(LL 003)

AUGUST 2017

Sub. Code:1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P.Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the clinical features, laboratory diagnosis and management of various autoimmune encephalitis.
2. Discuss role of hemispherectomy in the management of cerebrovascular disorders.

II. Write notes on:

(10 x 7 = 70)

1. Vagal nerve stimulation.
2. Seronegative myasthenia gravis.
3. Use of Monoclonal antibodies in Neurology.
4. Baclofen pump.
5. Emerging oral therapies for multiple sclerosis.
6. Neuronal Brain Iron accumulation.
7. Nano technology in neurology.
8. Constraint induced movement therapy.
9. Citicoline and Edaravone.
10. Gamma Knife.

(LM 003)

FEBRUARY 2018

Sub. Code: 1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P.Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the various clinical manifestations and evaluation of prion disease.
2. Discuss the various types, clinical features, investigations and management of autoimmune encephalitis.

II. Write notes on:

(10 x 7 = 70)

1. Mechanical thrombectomy.
2. Cardiac Troponin T in stroke.
3. Postural Tachycardia Syndrome (POTS).
4. Intracranial pressure monitoring.
5. Intrathecal Baclofen.
6. Role of hypothermia in neurological disorders.
7. Fingolimod.
8. Sonothrombolysis.
9. CSF biomarkers in Alzheimer's disease.
10. Immunohistochemistry.

(LN 003)

AUGUST 2018

Sub. Code: 1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P.Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Evaluation and treatment of acute ischaemic stroke in window period.
2. NMO spectrum disorders.

II. Write notes on:

(10 x 7 = 70)

1. Newer oral anticoagulants.
2. Perampanel.
3. Botox in neurology.
4. Drug induced headache.
5. Carotid endarterectomy.
6. Deep brain stimulation.
7. Recent concepts in neurodegenerative process.
8. Stereotypy.
9. Peroxisomal disorders.
10. Epilepsy surgery.

(LP 003)

AUGUST 2019

Sub. Code: 1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Recent advances in the investigation and management of Alzheimer's disease.
2. Sleep disorders in degenerative neurological conditions and its management.

II. Write notes on:

(10 x 7 = 70)

1. Progressive multifocal leucoencephalopathy.
2. Seizure detection and its implications.
3. Trans cranial magnetic stimulation.
4. Gene therapy in neurology.
5. Newer drugs for Parkinson's disease.
6. Intrathecal drug delivery.
7. Management of cerebral malaria.
8. Immunomodulation in multiple sclerosis.
9. Recent advances in management of migraine.
10. Neuro stimulation.

(LR 003)

NOVEMBER 2020
(AUGUST 2020 SESSION)

Sub. Code: 1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Auto immune encephalitis and its management.
2. Diagnosis and management of CNS tuberculosis.

II. Write notes on:

(10 x 7 = 70)

1. Cardiac Trop 'T' in stroke.
2. Deep brain stimulation.
3. Neurological manifestations of Covid 19 infection.
4. Cognitive abnormalities in haemodialysis patients.
5. Istradefylline.
6. Role of apomorphine in Parkinson's disease.
7. CSF biomarkers in Alzheimer's disease
8. Sonothrombolysis.
9. SOFA scoring.
10. Young onset dementia.

(DM 0221)

FEBRUARY 2021

Sub. Code: 1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. The assessment and management of Sleep Disorders.
2. Diagnosis and management of toxic and metabolic Encephalopathies.

II. Write notes on:

(10 x 7 = 70)

1. Dyslexia.
2. Variant CJD.
3. Atypical Alzheimer's Disease.
4. Intracranial Atherosclerosis.
5. Factitious Disorders.
6. Quick Stroke Protocol MRI.
7. Genigulate Neuralgia.
8. Ticagrelor.
9. Childhood arterial Ischaemic Stroke.
10. Dalteparin Sodium.

(DM 0821)

AUGUST 2021

Sub. Code: 1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Recent advances in neuro muscular disorders and update on treatment.
2. Recent advances in the etiopathogenesis, clinical features, imaging and management of auto immune encephalitis.

II. Write notes on:

(10 x 7 = 70)

1. Nusinersen.
2. Update in laboratory diagnosis of tuberculous meningitis.
3. Familial episodic ataxias.
4. Atypical PRES.
5. Bio markers in alzheimer's disease.
6. Parry Romberg syndrome.
7. Rapidly progressive dementias.
8. Van Der Knap disease.
9. Variants of familial spastic paraplegia.
10. Nummular headache.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0222]

FEBRUARY 2022

Sub.Code :1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: (2 x 15 = 30)

1. Discuss current concepts in etiology, immunopathology, clinical features, investigations and management of multiple sclerosis.
2. Recent concepts in thrombolysis and role of interventional neuro radiology in management of stroke.

II. Write notes on: (10 x 7 = 70)

1. Gamma knife surgery
2. Inclusion Body myositis
3. Cerebral amyloid angiopathy
4. Plasmapheresis and its role in neurological disorders
5. Restless leg syndrome
6. Tropical ataxic neuropathy
7. Non motor symptoms of Parkinsonism
8. Epileptic encephalopathy of childhood
9. Brain Death
10. CADASIL

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[DM 0822]

AUGUST 2022

Sub. Code :1414

D.M. – NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Neurological manifestation of Covid – 19.
2. Recent advances in Etiopathogenesis, imaging and Management of Parkinson's Disease.

II. Write notes on:

(10 x 7 = 70)

1. Dialysis encephalopathy.
2. Management of Recurrent TIA.
3. Alteplase.
4. Neuro Melioidosis.
5. Serotonin syndrome.
6. Cannabinoids.
7. Acute Autonomic crisis.
8. Tau pathies.
9. Transient Global Amnesia.
10. Carotid Endarterectomy.

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[DM 0223]

FEBRUARY 2023

Sub. Code :1414

D.M. – NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Diagnosis and management of CNS tuberculosis.
2. Sleep disorders in degenerative neurological conditions and its management.

II. Write notes on:

(10 x 7 = 70)

1. Reversible cerebral vasoconstriction syndrome.
2. Biomarkers in stroke.
3. Issacs' syndrome.
4. Neuroleptic malignant syndrome.
5. Critical illness Myopathy.
6. Wernicke encephalopathy.
7. Mitochondrial disorders.
8. Vanishing white matter disease.
9. Tenecteplase.
10. Familial subcortical infarction.

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[DM 0823]

AUGUST 2023

Sub. Code :1414

D.M. – NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Recent advances in the investigation and management of Alzheimer's disease.
2. Channelopathies – ION channels, disorders of Muscular ion channels, Neuronal ion channels, Epilepsy and Autoimmune channelopathies.

II. Write notes on: **(10 x 7 = 70)**

1. Crisper therapy in Duchenne muscular dystrophy.
2. Giant intraparenchymal cysticercosis.
3. Acute haemorrhagic Leukoencephalitis.
4. Vitamin D3 in Neurology.
5. Spinocerebellar ataxia 3.
6. Reversible dementias.
7. Spontaneous intracranial hypotension.
8. Hepatocerebral degeneration.
9. Twitch-convulsive syndrome.
10. Legal aspects of brain death.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0124]

JANUARY 2024

Sub. Code :1414

D.M. – NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss Ditans and Gepants in the Management of Migraine.
2. Genetic Testing in Clinical Movement Disorders.

II. Write notes on:

(10 x 7 = 70)

1. Artificial intelligence in Neurology.
2. Hypnic Headache.
3. Rituximab.
4. Newer Oral anticoagulants.
5. Deep Brain stimulation in Neurology.
6. Apnea Test for Brain death.
7. CSF flow studies.
8. Cardiac encephalopathy.
9. Osmotic demyelination.
10. Mimics and Chameleons in Motor Neuron disease.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0824]

AUGUST 2024

Sub. Code :1414

D.M. – NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Monitoring critically ill Neurological patients in Neuro intensive care unit.
2. Recent concepts in the management of Relapsing Remitting Multiple Sclerosis.

II. Write notes on:

(10 x 7 = 70)

1. Pure autonomic failure.
2. Rasmussen encephalitis.
3. Stiff person syndrome.
4. Neurosarcoidosis.
5. Pharmacoresistance / tolerance / seizure aggravation.
6. Post polio syndrome.
7. Mild cognitive impairment.
8. Trinucleotide repeat neurological disorders.
9. Botulinum Toxin in neurology.
10. Genetherapy in neurology.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0225]

FEBRUARY 2025

Sub. Code :1414

D.M. – NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the etiology, pathogenesis and management of Inflammatory muscle disease.
2. Discuss the clinical features and management of Trigeminal Autonomic Cephalalgias.

II. Write notes on:

(10 x 7 = 70)

1. Super refractory status Epilepticus.
2. Perampanel.
3. Tumefactive demyelination.
4. Neuro Behcet disease.
5. Branch artery atherosclerotic Disease (BAD).
6. Cryptogenic stroke.
7. Stroke mimics.
8. Biomarkers in ALS.
9. Gamma knife.
10. Aquaporin.

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

[DM 0825]

AUGUST 2025

Sub. Code :1414

D.M. – NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the management strategy for patient with first six hours of stroke arriving in emergency room.
2. Discuss the role of MRI in the evaluation of toxic and metabolic disorders of nervous system.

II. Write notes on:

(10 x 7 = 70)

1. Optical coherence tomography in neurology.
2. Venous congestive encephalopathy.
3. Vit D3 in neurology.
4. EEG changes in encephalitis and metabolic encephalopathies.
5. Tumefactive demyelination.
6. Primary progressive aphasia.
7. Neurogenic pulmonary edema.
8. Antiphospholipid antibody syndrome.
9. Cerebral microbleeds.
10. Obstructive sleep apnoea.

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

[DM 0126]

JANUARY 2026

Sub. Code: 1414

D.M. – NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161414

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Genetics, clinical course, diagnosis and treatment of Duchenne Muscular Dystrophy.
2. Mechanism of action, uses in Neurological disorders, limitations and complications of intravenous immunoglobulin.

II. Write notes on:

(10 x 7 = 70)

1. Advances in treatment of Alzheimer's disease.
2. Risdipam.
3. Stroke telemedicine.
4. Recent Advances in Subacute Sclerosing Panencephalitis.
5. Leukoencephalopathy with Vanishing White Matter (VWM disease).
6. Enzyme replacement therapy in adult Pompe's disease.
7. Antisense oligonucleotide therapy in ALS.
8. Status migrainosus.
9. Brain plasticity.
10. Management of neuropathic pain.
