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

[DM 0822] AUGUST 2022 Sub. Code :1509

D.M. – PAEDIATRIC NEUROLOGY

Paper IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161509

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss the hazards of increased screen time following the COVID pandemic.

2. Discuss assessment for sleep disorders in children with cerebral palsy and intervention

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

1. Epilepsy with eyelid myoclonia.
2. Brain-derived neurotropic factor in neonatal seizures.
3. NGS of CSF for diagnosis of unexplained CNS infections.
4. Newer treatment options for paediatric FIRES .
5. Pathophysiology of cyclic vomiting syndrome.
6. Genetic testing in malformation of cortical development.
7. Biofeedback programs for treatment of ADHD.
8. Exon Skipping.
9. Mitochondrial dysfunction in ASD.
10. Neuromodulation.

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

[DM 0124] JANUARY 2024 Sub. Code :1509

D.M. – PAEDIATRIC NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161509

Time: Three Hours **Maximum: 100 Marks**

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

1. Approach to Hyperhomocysteinemia.
2. Radiological approach to cerebellar atrophy.

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

1. SCN8 Encephalopathy.
2. Tractography.
3. Diffuse Leptomeningeal Glioneuronal Tumour.
4. Gain of function SCN1A disorder spectrum.
5. Programmable Shunt.
6. Genetic testing in ASD.
7. Mitochondrial dysfunction in ASD.
8. Cerebellar Mutism.
9. Neurological manifestations of MIS-C.
10. Reversible Cerebral vasoconstriction syndrome in children.

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

[DM 0824] AUGUST 2024 Sub. Code :1509

D.M. – PAEDIATRIC NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161509

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss the role of mTOR inhibitors in the pharmacologic management of tuberous sclerosis complex and their role in other rare neurodevelopmental disorders.

2. Recent advances in diagnosis and management of tuberculous meningitis in children.

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

1. Neural stem cells in lysosomal storage disorders.
2. Novel therapy in hereditary neuropathies.
3. Reversible cerebral vasoconstriction syndrome in children.
4. Neuromodulation for intractable childhood epilepsy.
5. State of the art genetic testing for autism.
6. Deep Brain stimulation.
7. Update on Stereotypic movement disorders.
8. Diffusion tensor imaging.
9. Precision medicine in genetic epilepsy.
10. Genetics of ischemic stroke in childhood.

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

[DM 0225] **FEBRUARY 2025** **Sub. Code :1509**

D.M. – PAEDIATRIC NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161509

Time: Three Hours **Maximum: 100 Marks**

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

1. Clinical features and update in the management of Neurofibromatosis type 1.
2. Elaborate on the neuroanatomy of the thalamus, perinatal lesions affecting lesions affecting it and neurological development.

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

1. Acute presentation of abusive head trauma.
2. Radiological evaluation of Moyamoya disease.
3. Infection-related acute encephalopathy.
4. Primary paediatric headache disorder types and characteristics.
5. Genetics of childhood onset hereditary spastic paraplegia.
6. Perampanel in paediatric epilepsies.
7. FDA-approved therapies for spinal muscular atrophy.
8. Paediatric Hashimoto’s encephalopathy.
9. Biomarkers for MOGAD.
10. Hypomyelinating leukodystrophy – MRI diagnosis.

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

[DM 0126] **JANUARY 2026** **Sub. Code :1509**

D.M. – PAEDIATRIC NEUROLOGY

PAPER IV – RECENT ADVANCES IN NEUROLOGY

Q.P. Code: 161509

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss multimodal neuromonitoring in the paediatric care unit.
2. Elaborate on existing and emerging therapies for Duchenne muscular dystrophy.

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

1. Artificial intelligence versus Augmented intelligence.
2. Chromatin remodelling disorders.
3. Advances in treatment of adrenoleukodystrophy.
4. FOXG1 disorders.
5. Targeted treatment in clinical development for genetically defined neurodevelopmental disorders.
6. Synaptopathy related epilepsies.
7. Messenger RNA-based vaccine and neurological complications.
8. Everolimus in Tuberous Sclerosis.
9. Biologicals in treatment of anti – AQP4 antibody positive disease.
10. Endovascular and thrombolytic treatment in childhood arterial ischemic stroke.

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