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MANIPAL ACADEMY OF HIGHER EDUCATION
DM (NEUROLOGY) DEGREE EXAMINATION – SEPTEMBER 2021
SUBJECT: PAPER I: BASIC SCIENCES RELATED TO NEUROLOGY

Wednesday, September 01, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Illustrate with diagrams wherever necessary.**

✍ **Essay questions:**

1. Describe the superficial and deep cerebral venous circulation. Describe in detail risk factors, clinical presentations, imaging features and therapeutic management of cerebral venous thrombosis.

(20 marks)

2. Describe the physiology of neuromuscular transmission. Describe in detail aetiopathogenesis, clinical presentations, evaluation and management of neuromuscular junction disorders.

(20 marks)

3. **Short answers:**

3A. Channelopathies in neurology.

3B. Afferent visual pathways and their lesions.

3C. Chronic disorders of consciousness.

3D. Calcitonin gene related peptide.

3E. Ring chromosome in epilepsy.

3F. Newer oral anticoagulants.

(10 marks × 6 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
DM (NEUROLOGY) DEGREE EXAMINATION – SEPTEMBER 2021
SUBJECT: PAPER II: CLINICAL NEUROLOGY; DISEASES OF THE CENTRAL
NERVOUS SYSTEM - BRAIN

Thursday, September 02, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Illustrate with diagrams wherever necessary.**

✍ **Essay questions:**

1. Define status epilepticus. Describe in detail the aetiopathogenesis, clinical features, evaluation and management and complications of convulsive and nonconvulsive status epilepticus.

(20 marks)

2. Define delirium. Describe the aetiopathogenesis, types, clinical manifestations and management and prognostication of patients with delirium.

(20 marks)

3. **Short answers:**

3A. Genetic Parkinsonism disorders.

3B. Autoimmune encephalitis.

3C. Vascular dementia.

3D. Autosomal recessive cerebellar ataxic syndromes.

3E. Neuroimaging in multiple sclerosis.

3F. Mitochondrial encephalopathies.

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
DM (NEUROLOGY) DEGREE EXAMINATION – SEPTEMBER 2021
SUBJECT: PAPER III: CLINICAL NEUROLOGY, DISEASES OF SPINAL CORD,
NERVES, NM JUNCTION, MUSCLES, ANS AND NEUROPSYCHIATRY

Friday, September 03, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Illustrate with diagrams wherever necessary.**

✍ **Essay Questions:**

1. Write in detail on classification aetiopathogenesis, evaluation and management of various immune mediated myopathies.

(20 marks)

2. Describe in detail the causes approach to evaluation and management of an elderly male presenting with progressive memory loss of 1 year duration.

(20 marks)

3. **Short notes:**

3A. Vascular myelopathy.

3B. Lambert Eaton myasthenic syndrome.

3C. Neurocysticercosis.

3D. Neurocutaneous syndromes.

3E. Genetic polyneuropathies.

3F. Facioscapulohumeral dystrophy.

(10 marks × 6 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
DM (NEUROLOGY) DEGREE EXAMINATION – SEPTEMBER 2021

**SUBJECT: PAPER IV: APPLIED BRANCHES RELATED TO NEUROLOGY,
NEURORADIOLOGY, NEUROPATHOLOGY, CLINICAL NEUROPHYSIOLOGY**

Saturday, September 04, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Illustrate with diagrams wherever necessary.**

✍ **Essay Questions:**

1. Describe in detail the indications, mechanisms, patient selection and targets for deep brain stimulation in neuropsychiatric disorders.

(20 marks)

2. Describe in detail newer diagnostic and treatment options in management of multiple sclerosis.

(20 marks)

3. **Short answers:**

3A. Endovascular treatments for acute stroke.

3B. Neurofilaments in neurological disease.

3C. Amyloid beta and tau imaging.

3D. CRISPR technology in neurological disorders.

3E. Neurological manifestations of COVID 19.

3F. Newer therapies in spinal muscular atrophy.

(10 marks × 6 = 60 marks)

