

April-2001

[KD 001]

Sub. Code : 1101

D.M. DEGREE EXAMINATION.

(Higher Specialities)

Branch I — Neurology

(Revised Regulations)

Paper I — BASIC SCIENCES

**(Consisting of Neuro Anatomy, Neuro Physiology,
Neuro Pathology, Neuro Chemistry and Electro
Neuro Physiology)**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the venous drainage of the brain and its applied significance. (25)
2. Discuss the anatomy and physiology of prefrontal lobe and neurological symptomatology caused by prefrontal dysfunction. (25)
- 3 Write short notes : (5 × 10 = 50)
 - (a) Neuroanatomy of memory.
 - (b) Disconnection syndrome.
 - (c) Frontal lobe epilepsy.
 - (d) Pathogenesis of prion disease
 - (e) Kluver-Bucy syndrome.

November-2001

[KE 001]

Sub. Code : 1101

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

(Consisting of Neuro-anatomy, Neuro-physiology,
Neuro pathology, Neuro chemistry and
Electro neuro physiology)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the concept of first six hour of stroke. (25)
 2. Illustrate the cross section of spinal cord at C-2.
Discuss the clinical features of spinal cord compression
at this level. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Cerebral auto regulation
 - (b) Genetics of epilepsy
 - (c) Free radicals
 - (d) Interferon
 - (e) Alpha rhythm.
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March-2002

[KG 001]

Sub. Code : 1101

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

(Consisting of Neuro Anatomy, Neuro Physiology,
Neuro Pathology, Neuro Chemistry and Electro
Neuro Physiology)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Describe the course of visual pathway from Retina to visual cortex, indicate the blood supply and the sites of various lesions that may affect the fields of vision. (25)
 2. Discuss pathophysiological mechanisms of spasticity and its management. (25)
 3. Write short notes : (5 × 10 = 50)
 - (a) L.Carnitine
 - (b) Acetazolamide in Neurological practice
 - (c) R.E.M. sleep
 - (d) Medial Longitudinal Fasciculus (MLF)
 - (e) Histochemical studies of skeletal muscles.
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Spetember-2002

[KH 001]

Sub. Code : 1101

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

**(CONSISTING OF NEURO ANATOMY, NEURO
PHYSIOLOGY, NEURO PATHOLOGY, NEURO
CHEMISTRY AND ELECTRO NEURO PHYSIOLOGY)**

Time Three hours

Maximum : 100 marks

Answer ALL questions

1. Discuss the internal organization and physiology of spinal cord. (25)
2. Discuss the parietal lobe functions. Add a note on the pathophysiology of neglect syndromes. (25)
- 3 Write short notes : (5 × 10 = 50)
 - (a) Locus cerelius
 - (b) Hyperekplexia
 - (c) Oculomotor apraxia
 - (d) Gamma motor neuron
 - (e) Pathway for up-ward gaze

[KI 001]

April-2003

Sub. Code : 1101

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

(CONSISTING OF NEURO ANATOMY, NEURO-
PHYSIOLOGY, NEURO PATHOLOGY, NEURO
CHEMISTRY AND ELECTRO NEURO PHYSIOLOGY)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the pathophysiology of cerebral infarction.
(25)
 2. Illustrate the gross anatomy of thalamus. Discuss the connections and functions of various thalamic nuclei.
(25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Animal models of stroke
 - (b) Circle of willis
 - (c) Blood brain barrier
 - (d) Purkinje cell
 - (e) Muscle stretch reflex.
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[KK 001]

Sub. Code : 1101

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(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

(CONSISTING OF NEURO ANATOMY, NEURO-
PHYSIOLOGY, NEURO PATHOLOGY, NEURO
CHEMISTRY AND ELECTRO NEURO PHYSIOLOGY)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

A. Essay :

(2 × 15 = 30)

(1) Describe the normal mitochondrial functions and discuss the pathophysiology and mode of transmission of mitochondrial disorders. (15)

(2) Discuss the pathophysiology underlying channelopathies. (15)

B. Short notes :

(10 × 5 = 50)

- (1) Peroxisomal disorders
 - (2) Lennox gastaut syndrome
 - (3) Alpha synuclein
 - (4) Complex repetitive discharges
 - (5) Amyloid angiopathy
 - (6) Sural nerve biopsy
 - (7) Lambert eaton syndrome
 - (8) Dyslexias
 - (9) Essential tremor
 - (10) Charcot.
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[KM 001]

Sub. Code : 1101

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

(CONSISTING OF NEURO ANATOMY, NEURO
PHYSIOLOGY, NEURO PATHOLOGY, NEURO
CHEMISTRY AND ELECTRO NEURO PHYSIOLOGY)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Essay : (2 × 15 = 30)

(1) Discuss the stages of cerebral ischemia.

(2) Describe the anatomy and functions of the
Thalamus.

II. Short notes : (10 × 5 = 50)

(a) MSH (melanocyte stimulating hormone)

(b) Formation of cerebro-spinal fluid

(c) The physiology of nystagmus.

(d) Cyto-architecture of the cerebral cortex.

(e) Spatial orientation.

(f) Cholinergic systems in the brain.

(g) Dystrophin.

(h) EMG in the diagnosis of radiculopathies.

(i) The origin of the alpha waves on EEG.

(j) The significance of P300 and P500 on evoked
potential study.

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II. Short Notes :

(10 × 5 = 50)

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(CONSISTING OF NEURO ANATOMY, NEURO
PHYSIOLOGY, NEURO PATHOLOGY, NEURO
CHEMISTRY AND ELECTRO NEURO PHYSIOLOGY)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay question : (2 × 15 = 30)

(1) Discuss the anatomy and physiology of extra-
pyramidal system.

(2) Draw 'Circle of Willis' and discuss cerebral
autoregulation.

(a) Visual evoked potentials

(b) GABA

(c) Visual pathway

(d) Homocysteine

(e) Cholinergic crisis

(f) Substance P

(g) REM sleep

(h) Released reflexes

(i) C fibres

(j) Baclofen.

[KP 001]

Sub. Code : 1101

II. Short notes :

(6 × 5 = 30)

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

(CONSISTING OF NEUROANATOMY,
NEUROPHYSIOLOGY, NEUROPATHOLOGY,
NEUROCHEMISTRY AND ELECTRO NEURO
PHYSIOLOGY)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(1) Describe the various thalamic nuclei and
their connections. (20)

(2) Discuss the pathophysiology of Spasticity. (15)

(3) Discuss the Neurobiology of Aging Process.
(15)

(a) Connections of Superior cerebellar peduncle.

(b) Supranuclear Gaze pathways

(c) Neurotrophic factors

(d) Experimental Allergic Encephalomyelitis

(e) Papez's Circuit

(f) Jitter

[KQ 001]

Sub. Code : 1101

II. Short notes :

(6 × 5 = 30)

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

(Consisting of Neuroanatomy, Neurophysiology,
Neuropathology, Neurochemistry and Electro
Neuro Physiology)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay Questions :

1. Describe the anatomy, connections and functions of cerebellum. (20)
2. Write about Single gene stroke disorders. (15)
Write about Anti retroviral drugs. (15)

- (a) Mamillary bodies.
- (b) Clonidine in neurology.
- (c) Trinucleotide repeats.
- (d) Urodynamic study in bladder dysfunction.
- (e) Glial cells and their functions.
- (f) Tau protein disorders.

August-2007

[KR 001]

Sub. Code : 1101

II. Short notes :

(6 × 5 = 30)

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch I — Neurology

Paper I — BASIC SCIENCES

(Consisting of Neuroanatomy, Neurophysiology,
Neuropathology, Neurochemistry and Electro Neuro
Physiology)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay Questions :

1. Draw dural venous sinuses and discuss the pathophysiology of cerebral sinovenous occlusive diseases. (20)
2. Discuss the basis of stem cell therapy and its potential application in neurology. (15)
3. Discuss epileptogenesis. (15)

- (a) Silent period
- (b) Cannabinoids
- (c) Parkin gene
- (d) Heubner's artery
- (e) Mucuna Pruriens
- (f) Neuroacanthocytosis.

August 2008

[KT 001]

Sub. Code: 1101

D.M. DEGREE EXAMINATION

(Higher Specialities)

Branch I -Neurology

(Revised Regulations)

**Paper I – BASIC SCIENCES (Consisting of Neuro anatomy,
Neuro-physiology, Neuro pathology, Neuro chemistry
& Electro neuro physiology)**

Q.P. Code: 161101

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Describe the anatomical and physiologic basis of ocular movements.
2. Discuss the pathophysiology of Dystonia.

II. Write short notes on:

10 x 6 = 60

1. Cerebellum and cognition.
2. Bone marrow study in diagnostic neurology.
3. Pathology of idiopathic polymyositis.
4. Demyelination and remyelination.
5. Neurotransmission.
6. Ferritinopathies.
7. Homocysteine.
8. Amyloid angiopathy.
9. Fahr Syndrome.
10. Cannabinoids in Neurology.

February 2009

[KU 001]

Sub. Code: 1101

D.M. DEGREE EXAMINATION

(Higher Specialities)

Branch I -Neurology

(Revised Regulations)

**Paper I – BASIC SCIENCES (Consisting of Neuro anatomy,
Neuro-physiology, Neuro pathology, Neuro chemistry
& Electro neuro physiology)**

Q.P. Code: 161101

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Discuss the ion channel disorders in Neurology.
2. Discuss the pathophysiology of paraplegia due to spinal injury.

II. Write short notes on:

10 x 6 = 60

1. Coma.
2. Autosomal dominant inheritance.
3. Recurrent artery of Huebner.
4. Malignant hyperthermia.
5. Visual Anosognosia.
6. Asomatognosia.
7. Kleine-Levin syndrome.
8. Hyperekplexia.
9. Lipofuscinoses.
10. Skew deviation.

August 2009

[KV 001]

Sub. Code: 1101

D.M. DEGREE EXAMINATION

(Higher Specialities)

Branch I -Neurology

(Revised Regulations)

**Paper I – BASIC SCIENCES (Consisting of Neuro anatomy,
Neuro-physiology, Neuro pathology, Neuro chemistry
& Electro neuro physiology)**

Q.P. Code: 161101

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Discuss the neural control of muscle tone and the pharmacotherapy of spasticity.
2. Discuss the anatomy of thalamus and various disorders due to it's lesion.

II. Write short notes on:

10 x 6 = 60

1. Supplementary motor area.
2. Blood supply pf spinal cord.
3. Synapse.
4. Draw and label section of mid brain.
5. Cognitive evoked potentials.
6. Alpha rhythm.
7. Fragile x chromosome.
8. Dopamine receptors.
9. Neuro-muscular junction.
10. Gene therapy in neurological disorders.
