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MANIPAL ACADEMY OF HIGHER EDUCATION

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – DECEMBER 2023

SUBJECT: PAPER I

Monday, December 11, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **All questions are compulsory.**

✍ **Long Essay:**

1. Describe the pathophysiology of raised intracranial pressure and describe the cerebral herniation syndromes.

(20 marks)

2. Surgical anatomy of the fourth ventricle.

(20 marks)

3. **Write briefly on:**

3A. Auditory pathway and Brain stem auditory evoked response

3B. Hyponatremia in neurosurgery

3C. Diabetes insipidus

3D. Grade II meningiomas

3E. Blood supply to the spinal cord

3F. Tumour markers

(10 marks × 6 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – DECEMBER 2023

SUBJECT: PAPER II

Tuesday, December 12, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ All questions are compulsory.

✍ Long Essay:

1. Discuss in detail about the origin, course, branches and disorders of 7th cranial nerve.
(20 marks)

2. Classify seizures. Define status epilepticus and discuss the management of status epilepticus.
Add a note on newer anticonvulsants.
(20 marks)

3. Short Essays:

3A. Babinski sign

3B. Brain death

3C. Frontal lobe signs

3D. Neurogenic bladder

3E. Superior orbital fissure

3F. Cross section of midbrain of superior collicular level

(10 marks × 6 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – DECEMBER 2023

SUBJECT: PAPER III

Wednesday, December 13, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **All questions are compulsory.**

✍ **Long Essay:**

1. Management of incidental intracranial aneurysms.

(20 marks)

2. Management of thoracolumbar fractures.

(20 marks)

3. **Short notes:**

3A. GH secreting adenomas – diagnosis and management strategies

3B. Failed back surgery syndrome

3C. Craniopharyngioma – classification and surgical corridors

3D. Clival chordoma – pathology, clinical features and management strategies

3E. Chiasm/hypothalamic glioma

3F. CNS lymphoma

(10 marks × 6 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – DECEMBER 2023

SUBJECT: PAPER IV

Thursday, December 14, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✍ All questions are compulsory.
- ✍ Draw diagrams wherever necessary.
- ✍ All questions carry equal marks.

1. Newer techniques in aneurysm coiling

(20 marks)

2. Surgery for movement disorders

(20 marks)

3. Write Short Notes on:

3A. Carotid endarterectomy vs stenting – debate

3B. Spinal AVM – Types and Management.

3C. Imaging in acute stroke

3D. Stem cells in neurosurgery

3E. Gazi Yasergil

3F. Motion preserving spine stabilization surgery

(10 marks × 6 = 60 marks)

