

MANIPAL ACADEMY OF HIGHER EDUCATION
M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2019
SUBJECT: PAPER I: BASIC SCIENCES

Tuesday, July 09, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✍ **All questions are compulsory.**
- ✍ **All questions carry equal marks.**

✍ **Long essay:**

1. CSF production and CSF flow dynamics
2. Etiopathogenesis of cerebral aneurysms

(20 marks × 2 = 40 marks)

3. **Short Notes:**

- 3A. Floor of the third ventricle
- 3B. Control of micturition
- 3C. Inhibitory neurotransmitters
- 3D. Pathophysiology of spinal cord injury
- 3E. Endocrinological diagnosis of Cushings disease
- 3F. Intracranial Epidermoid cysts – concept in pathogenesis

(10 marks × 6 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2019
SUBJECT: PAPER II: CLINICAL NEUROLOGY AND NEUROSURGERY

Wednesday, July 10, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **All questions are compulsory.**

✍ **Long Essay:**

1. Internuclear ophthalmoplegia

2. Cerebral localization – diagnosis of various cerebral frontal lobe dysfunctions

(20 marks × 2 = 40 marks)

3. **Write briefly on:**

3A. Neurocysticercosis

3B. Normal pressure hydrocephalus

3C. Idiopathic intracranial hypertension

3D. Spontaneous intracerebral hematoma

3E. Prolactinomas

3F. Superior orbital fissure syndrome

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION**M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2019****SUBJECT: PAPER III: CLINICAL NEUROSURGERY**

Thursday, July 11, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **All questions are compulsory.**

✍ **Essay:**

1. C1-C2 fusion techniques.

2. A 30 year old male presents with galactorrhea and decreased libido for 6 months. Prolactin levels - 221ng/ml. Imaging shows a 9 mm pituitary adenoma. Describe the diagnostic approach for this patient with reference to clinical manifestations, indications of therapy in prolactinomas and medical management in particular.

(20 marks × 2 = 40 marks)

3. **Short notes:**

3A. Temporal lobectomy-indications and surgical technique

3B. Moyamoya disease-classification and surgical options

3C. Jugular foramen tumours

3D. Epilepsy surgery-basic aspects and options available

3E. Nerve compression syndromes

3F. Management of lumbar spondylolisthesis

(10 marks × 6 = 60 marks)



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M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2019
SUBJECT: PAPER IV: RECENT ADVANCES, NEURORADIOLOGY

Friday, July 12, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **All questions are compulsory.**

✍ **Essay:**

1. Role of decompressive craniectomy and clinical trials for the same.
2. Functional neurosurgery

(20 marks × 2 = 40 marks)

3. **Short notes:**

- 3A. PET
- 3B. Harvey Cushing
- 3C. Awake surgery for neurological disorders
- 3D. Embolization
- 3E. Temozolamide
- 3F. SLIC classification for spinal trauma

(10 marks × 6 = 60 marks)

