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## MANIPAL UNIVERSITY

**M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2016**

**SUBJECT: PAPER I: BASIC SCIENCES**

Wednesday, July 13, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

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☞ **All questions are compulsory.**

☞ **Draw Diagrams whenever necessary.**

☞ **Long Essays:**

1. Describe the anatomy of the temporal lobe in a surgeons perspective.
2. Measurement of cerebral blood flow.

(20 marks × 2 = 40 marks)

3. **Short Notes:**

- 3A. Hyponatremia in neurosurgery
- 3B. Cerebral autoregulation
- 3C. Normal CSF flow dynamics
- 3D. Etiopathogenesis of Spinal tuberculosis
- 3E. Classification of pineal region tumours
- 3F. Investigating a patient with Acromegalic features

(10 marks × 6 = 60 marks)



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## MANIPAL UNIVERSITY

**M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2016**

**SUBJECT: PAPER II: CLINICAL NEUROLOGY AND NEUROSURGERY**

Thursday, July 14, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

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✍ **All questions are compulsory.**

✍ **Long Essay:**

1. Internuclear ophthalmoplegia.

(20 marks)

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

(20 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)



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**MANIPAL UNIVERSITY**

**M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2016**

**SUBJECT: PAPER III: CLINICAL NEUROSURGERY**

Friday, July 15, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

☞ **All questions are compulsory:**

☞ **Long Essays:**

1. Safe entry zones to the brain stem.

(20 marks)

2. Approaches to the pineal region.

(20 marks)

3. **Write briefly on:**

3A. Approaches to the orbit

3B. Low grade gliomas – controversies in surgical management

3C. Brain stem gliomas

3D. Risk stratification in medulloblastoma

3E. Incidental Colloid cysts of the third ventricle – management controversy

3F. Type II odontoid fracture

(10 marks × 6 = 60 marks)



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## MANIPAL UNIVERSITY

**M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2016**

**SUBJECT: PAPER IV: RECENT ADVANCES, NEURORADIOLOGY**

Saturday, July 16, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

☞ **All questions are compulsory.**

☞ **Long Essays:**

1. Current concepts in surgery for bony craniovertebral junction anomalies.

(20 marks)

2. Surgery for movement disorders.

(20 marks)

3. **Write briefly on:**

3A. Carotid endarterectomy vs stenting – debate

3B. Incidental intracranial aneurysms

3C. Imaging in acute stroke

3D. Stem cells in neurosurgery

3E. Gazi Yasergil

3F. Motion preserving spine stabilization surgery

(10 marks × 6 = 60 marks)

