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MANIPAL UNIVERSITY

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2013

SUBJECT: PAPER I: NEUROBASIC SCIENCES

Wednesday, July 03, 2013

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

☞ All questions carry TEN marks each.

1. Papez circuit
2. Meckels cave
3. Brocas area
4. Suprasellar cisterns
5. Innervation of urinary bladder
6. Pathology of astrocytoma
7. Cerebral blood flow
8. Reflex arc
9. Superior orbital fissure
10. Mannitol



MANIPAL UNIVERSITY
M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2013
SUBJECT: PAPER II: CLINICAL NEUROLOGY AND NEUROSURGERY

Friday, July 05, 2013

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ All questions carry equal marks.

1. Electrocorticography
2. ICP monitoring
3. Clinical features of craniovertebral junction anomalies
4. Management of post traumatic CSF rhinorrhoea
5. Metabolic and systemic response to severe head injury
6. Newer anticonvulsants
7. Surgery for ischemic stroke
8. Surgically remediable dementias
9. Central cord syndrome
10. Multiple intracranial cysticercosis



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M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2013

SUBJECT: PAPER III: CLINICAL NEUROSURGERY INCLUDING OPERATIVE NEUROSURGERY

Monday, July 08, 2013

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **All questions are compulsory.**

✍ **All questions carry equal marks.**

✍ **Write briefly on:**

1. Safe entry zones to the brain stem
2. Approaches to the pineal region
3. Shunt systems – recent advances
4. Approaches to the orbit
5. Low grade gliomas – controversies in surgical management
6. Single level cervical disc prolapse – surgical options and controversies
7. Brain stem gliomas
8. Risk stratification in medulloblastoma
9. Incidental Colloid cysts of the third ventricle – management controversy
10. Type II odontoid fracture



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MANIPAL UNIVERSITY

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2013

SUBJECT: PAPER IV: RECENT ADVANCES IN NEUROSCIENCES,
NEURORADIOLOGY AND HISTORY OF NEUROSURGERY

Wednesday, July 10, 2013

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

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

✍ Write briefly on:

1. MR spectroscopy
2. Compare : Gammaknife vs X knife vs cyberknife
3. EC- IC bypass – current concepts
4. Brain death
5. Noble prize winners in neurosurgery
6. Onyx in interventional neuroradiology
7. Vertebroplasty
8. Radiosurgery for acoustic neuromas
9. Motion preserving spine surgery
10. Spinal endoscopy

