

MANIPAL UNIVERSITY**M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2010****SUBJECT: PAPER I: NEUROBASIC SCIENCES**

Monday, July 05, 2010

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

☞ All questions carry TEN marks each.

1. Discuss the anatomy of the subaxial cervical spine and its biomechanics.
2. Discuss the endoscopic anatomy of the sella turcica and the sphenoid sinus.
3. Discuss the anatomy and functions of the ligamentum flavum.
4. Discuss in detail cerebral autoregulation and its clinical significance.
5. Discuss the WHO 2007 classification of CNS tumours.
6. Discuss the molecular genetics of glial neoplasms and their clinical significance.
7. Discuss the biochemistry of cerebral ischemia.
8. Discuss the blood supply of the spinal cord.
9. Discuss the microsurgical anatomy of posterior inferior cerebellar artery.
10. Discuss the pathological changes in diffuse axonal injury.



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MANIPAL UNIVERSITY

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2010

SUBJECT: PAPER II: CLINICAL NEUROLOGY AND NEUROSURGERY

Tuesday, July 06, 2010

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **All questions carry TEN marks each.**

1. Discuss the clinical features and management of herpes simplex encephalitis.
2. Discuss the pathophysiology and clinical features of central cord syndrome.
3. Discuss the pathophysiology of syringomyelia.
4. Discuss the pathology, clinical presentation, differential diagnosis, management and prognosis of normal pressure hydrocephalus.
5. Discuss the endovascular management options available for intracranial aneurysms.
6. Discuss the indications, contraindications and complications of various anterior and posterior decompressive procedures for cervical spondylotic myelopathy.
7. Discuss the differential diagnosis of unilateral, axial proptosis in adults.
8. Discuss the neurological implications of fluorosis.
9. Discuss the diagnosis and management of solitary ring enhancing lesions of the cerebral hemispheres.
10. Discuss the pathophysiology, radiological findings and management options of supratentorial arachnoid cysts.



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MANIPAL UNIVERSITY

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2010

SUBJECT: PAPER III: CLINICAL NEUROSURGERY INCLUDING OPERATIVE NEUROSURGERY

Wednesday, July 07, 2010

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✂ All questions carry TEN marks each.

1. Discuss the surgical options available for the management of craniopharyngiomas.
2. Discuss the medical complications of subarachnoid haemorrhage and their management.
3. Discuss the surgical management of spasticity.
4. Discuss the management options for intracranial secondaries.
5. Discuss the controversies in the management of spinal lipomas.
6. Discuss the options available for the management of vestibular schwannomas.
7. Discuss the current status of extracranial –intracranial bypass in neurosurgery.
8. Discuss the surgical approaches for tentorial meningiomas.
9. Discuss the options available for the management of basilar bifurcation aneurysms.
10. Discuss the surgical techniques available for occipitocervical fusion.



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MANIPAL UNIVERSITY

M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2010

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

Thursday, July 08, 2010

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

1. Discuss the role of intraoperative MRI and its advantages and limitations in the management of gliomas.
2. Discuss the recent advances in the management of dural arteriovenous fistulas.
3. Discuss the role of diffusion weighted MRI in neurosurgery.
4. Discuss the advantages and limitations of CT angiography in the management of intracranial aneurysms.
5. Discuss the contributions of Lars Leksell to neurosurgery.
6. Discuss the complications and limitations of radiosurgery.
7. Discuss the current status of endoscopy in the management of degenerative disc disease.
8. Discuss the options available for the management of acromegaly.
9. Discuss the recent advances in the surgical management of craniosynostosis.
10. Discuss the neurosurgical contributions of Victor Horsley.

