





Reg. No.

HEALTH SCIENCES 1100 00

## MANIPAL UNIVERSITY

**M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2009**

**SUBJECT: PAPER III: CLINICAL NEUROSURGERY INCLUDING OPERATIVE NEUROSURGERY**

Friday, July 03, 2009

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

1. Discuss the surgical approaches to orbital tumours.
2. Discuss the current status of deep brain stimulation for movement disorders.
3. Discuss the pathophysiology, diagnosis and management of vasospasm following aneurysmal subarachnoid haemorrhage.
4. Discuss the surgical approaches to anterior and middle column lesions of the thoracic spine.
5. Discuss the nonoperative management of low back ache.
6. Discuss the neurosurgical management of trigeminal neuralgia.
7. Discuss the clinical presentation and management of intramedullary spinal cord tumours.
8. Discuss the pathophysiology of tethered cord syndrome.
9. Discuss the indications and complications of hyperventilation in the management of head injury.
10. Discuss the surgical techniques of posterior cervical fusion.



**MANIPAL UNIVERSITY****M.Ch. (NEURO SURGERY) DEGREE EXAMINATION – JULY 2009****SUBJECT: PAPER IV: RECENT ADVANCES IN NEUROSCIENCES,  
NEURORADIOLOGY AND HISTORY OF NEUROSURGERY**

Saturday, July 04, 2009

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

1. Discuss the role of endovascular techniques in the management of dural venous sinus thrombosis.
2. Discuss the current status of intrarterial and intravenous thrombolysis in ischemic stroke.
3. Discuss the endovascular management of giant intracranial aneurysms.
4. Discuss the role of perfusion MR imaging and diffusion MR imaging in the diagnosis of ischaemic stroke.
5. Discuss Harvey Cushing's contributions to neurosurgery.
6. Discuss the role of radiosurgery in the management of pituitary tumours.
7. Discuss the indications, advantages, limitations and complications of radiosurgery in the management of intracranial AVMs.
8. Describe the recent advances in the biology of bone fusion.
9. Discuss the nonsurgical management of functional pituitary tumours.
10. Discuss the potential role of stem cells in neurosurgery.

