

SUPER SPECIALITY PROGRAMME M. Ch. (NEUROSURGERY)

EXAMINATION, AUGUST - 2022

(Three years course)

PAPER ONE

BASIC NEUROSCIENCES – NEUROANATOMY, PHYSIOLOGY, NEURO PHARMACOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever necessary.

- Q. 1.** Describe the biomechanics, pathogenesis and management of a T10 vertebral compressive fracture. (10)
- Q. 2.** Describe pathophysiology and management of pituitary apoplexy. (10)
- Q. 3.** Discuss the various neural control of urinary bladder. (10)
- Q. 4.** Describe the role of Total intravenous anaesthesia in supratentorial surgery. (10)
- Q. 5.** Draw a neat labelled diagram of cervical spinal cord at C6. (10)
- Q. 6.** Describe the anatomical course and clinical localization of facial nerve. (10)
- Q. 7.** Describe the Blood brain barrier. (10)
- Q. 8.** Write a short note on Levetiracetam. (10)
- Q. 9.** Describe the anatomy of 3 ventricle. (10)
- Q. 10.** Describe various hypothesis involved in cerebral auto- regulation. (10)

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PAPER TWO

CLINICAL NEUROSCIENCES, EMERGENCY NEUROSURGERY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever necessary.

- Q. 1.** Write short note on spontaneous lobar intracerebral hemorrhage. (10)
- Q. 2.** Describe acute hydrocephalus. (10)
- Q. 3.** Describe diffuse axonal injury. (10)
- Q. 4.** Enumerate the role of ICP monitoring in head injury. (10)
- Q. 5.** Describe Cauda equina syndrome. (10)
- Q. 6.** Write surgical management of Brain abscess. (10)
- Q. 7.** Describe the urgent spine surgery for traumatic paraplegia. (10)
- Q. 8.** Describe Intraventricular hemorrhage management. (10)
- Q. 9.** Write short note on venous infarct. (10)
- Q. 10.** Describe Decompressive craniectomy. (10)

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PAPER THREE

**OPERATIVE NEUROSCIENCES, NEUROPATHOLOGY, NEURO-MICROBIOLOGY,
NEURO-RADIOLOGY AND NEUROLOGY**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever necessary.

- Q. 1.** Classify pituitary tumours and describe the role of radiation therapy in pituitary tumours. **(10)**
- Q. 2.** Write the clinicoradiological features and management of a vertebral haemangioma. **(10)**
- Q. 3.** Describe the surgical corridors to brainstem lesions. **(10)**
- Q. 4.** Describe regional anaesthesia for spine surgery. **(10)**
- Q. 5.** Write insular glioma-classification and management. **(10)**
- Q. 6.** Write short note on Periinsular hemispherotomy. **(10)**
- Q. 7.** Enumerate the surgical corridors to posterior 3 ventricular lesions. **(10)**
- Q. 8.** Describe expanded endonasal approach to skull base lesions. **(10)**
- Q. 9.** Describe Fisch type A approach. **(10)**
- Q. 10.** Describe endonasal transpterygoid approach **(10)**

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PAPER FOUR

RECENT ADVANCES IN NEUROSCIENCES INCLUDING CLINICAL TRIALS

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever necessary.

- Q. 1.** Write pathogenesis and the role of cisternostomy in diffuse brain swelling. **(10)**
- Q. 2.** Write WHO classification (5th edition, 2021) of glioma. **(10)**
- Q. 3.** Describe intraoperative monitoring in spinal cord surgery. **(10)**
- Q. 4.** Describe the role of fluorescence and ICG in brain surgery. **(10)**
- Q. 5.** Write short note on Brain death. **(10)**
- Q. 6.** Describe Kaplan Meier curve. **(10)**
- Q. 7.** Write Lenke classification of scoliosis. **(10)**
- Q. 8.** Describe the middle cerebral artery aneurysms-classification and types of clips used. **(10)**
- Q. 9.** Write short note on MOMS TRIAL. **(10)**
- Q. 10.** Write a short note on Neurological Society of India. **(10)**