



Fellowship Examination 2018

Neurosurgery

Written Paper One

12th April, 2018

Duration of the Examination: 130 minutes

Question & Answer Book

Candidates are permitted to bring into the examination room:

- Pens/Pencils
- Erasers

Candidates are not permitted to bring into the examination room:

- Mobile phones and/or any other electronic devices
- Blank sheets of paper
- White-out liquid/tape
- Watches/timers
- Pencil cases
- Glasses cases
- Calculators

Materials supplied:

- Question and Answer book of 49 pages

At the end of the examination, candidates are to leave the Question and Answer Book on their desk.

Candidates are not permitted to remove the Question Book from the examination room.

Questions

- There are 3 Questions to be answered
- Candidates are to write answers on the lines provided. Answers outside this area will not be seen by the examiner and therefore will not be assessed.
- Clearly number the sub question you are answering.
- All questions must be answered.
- Each question is of equal value.
- All answers must be written in English

Question 1

Describe the surgical approaches to various regions of the third ventricle. In your answer discuss the advantages and disadvantages of each approach.

Question 2



A 60 year old healthy woman presents with a 1 year history of gradually worsening neurogenic claudication, now at a distance of 30-50 metres. Her spinal and neurological examination is normal except for absent ankle jerks. Her MRI is shown.

- What are the non-operative treatment options for this patient and how effective are they?
- What are the surgical options for this patient? Discuss your preferred option, giving reasons for your preference, and with reference to recent literature.

Question 3

A 30 year old woman undergoes a craniotomy for repair of a 15mm unruptured posterior communicating artery aneurysm and postoperatively has a contralateral hemiparesis. A postoperative digital subtraction angiogram shows obliteration of the aneurysm but no filling of the anterior choroidal artery.

- a) Describe the bony anatomy of the pterion, with particular reference to the osteotomies made during a pterional craniotomy
- b) Describe the origin, course and relationships of the anterior choroidal artery.
- c) Explain the anatomical basis of the clinical syndromes resulting from occlusion of the anterior choroidal artery

END OF PAPER



ROYAL AUSTRALASIAN
COLLEGE OF SURGEONS

Fellowship Examination 2018

Neurosurgery

Written Paper Two

12th April, 2018

Duration of the Examination: 130 minutes

Question & Answer Book

Candidates are permitted to bring into the examination room:

- Pens/Pencils
- Erasers

Candidates are not permitted to bring into the examination room:

- Mobile phones and/or any other electronic devices
- Blank sheets of paper
- White-out liquid/tape
- Watches/timers
- Pencil Cases
- Glasses Cases
- Calculators

Materials supplied:

- Question and Answer book of 46 pages.

At the end of the examination, candidates are to leave the Question and Answer Book on their desk.

Candidates are not permitted to remove the Question Book from the examination room.

Questions

- There are 3 Questions to answer in this paper.
- Candidates are to write answers on the lines provided.
- Clearly number the sub question you are answering.
- Answers outside this area will not be seen by the examiner and will therefore not be assessed.
- All questions must be answered.
- Each question is of equal value.
- All answers must be written in English.

Question 1

A healthy 40 year old man presents with a 3 month history of tingling and numbness in the medial 2 fingers and adjacent palm of the left hand.

- a) What is the differential diagnosis in order of probability?
- b) What further history would you elicit and what clinical signs would you seek in your examination to confirm the likely diagnosis?
- c) Your history, examination and investigations confirm an ulnar neuropathy at the elbow. Discuss the management options for this patient.

Question 2

An endocrinologist refers you a 45 year old patient with a probable diagnosis of Cushing's disease.

- a) List the clinical features of Cushing's syndrome.
- b) The MRI scan does not show a pituitary adenoma. Explain how the following tests may support the diagnosis of Cushing's disease.
 - I. Salivary free cortisol
 - II. Low and high dose dexamethasone suppression test
 - III. Corticotrophin releasing factor (CRF) stimulated petrosal sinus sampling
- c) At transsphenoidal surgery a small, histologically confirmed, adenoma is excised. Six months later there is incomplete biochemical and clinical remission of the Cushing's disease. Evaluate the management options for this patient, including their advantages and disadvantages.

Question 3

Write short notes on:

1. Investigation and management of non-traumatic vertebral artery dissection.
2. Pathophysiology and management of spinal dural arteriovenous fistula.
3. Treatment options for idiopathic intracranial hypertension.
4. Venous air embolism in neurosurgery.
5. Autonomic dysreflexia after spinal cord injury.

END OF PAPER