



The Royal Australian and New Zealand
College of Radiologists®

Anatomy

Paper 2 Exam

Monday, 19 October 2020



CASE 1

Question 1:

Carotid internal angiograms. Label the structures 1-16. Be specific. (0.5 marks each)

Question 2:

Transverse section of a whole brain specimen photograph looking from below.

- a) Identify structure A and describe its structure and course. (6)
- b) Identify structure B and describe its structure. (3)
- c) Describe the relations of structure B. (2)
- d) Identify structures C and D. (1)

Question 3:

Name four common or important variants of the persistent carotid-vertebrobasilar anastomoses. (4)

CASE 2

Question 1:

Skull base CT in bone windows. Label the structures 1-16. Be specific. (0.5 marks each)

Question 2:

Transverse MRI T2 SPACE of the internal auditory canals.

- a) What is the circled structure A (be specific)? (1)
- b) What branch from structure B passes into the internal auditory canal? (1)
- c) What other structures pass through the internal auditory canal? (3)
- d) What structures form the horizontal and vertical divisions of the lateral portion of the internal auditory canal? (2)
- e) Describe the position of the structures in the lateral portion of the internal auditory canal? (4)
- f) What is structure C (be specific)? (1)

Question 3:

Name five common or important variants of the thyroid gland excluding vascular variants. (5)

CASE 3

Question 1:

Sagittal T2 of the thoracic spine. Label the structures 1-16. Be specific. (0.5 marks each)

Question 2:

Lateral diagram of the L2 and L3 vertebrae

- a) Name 2 ligaments attached to structure labelled 1. (1)
- b) Name the structure labelled 2. (1)
What articulates with it? (1)
What type of joint is it? (0.5)
Describe the movement of the joint. (0.5)
What is the sensory nerve supply of this joint? (2)
- c) Name the parts of the structure labelled 3. (1)
- d) This image shows the L2 and L3 vertebrae.
What level is this nerve root labelled 4? (1)
- e) Describe the venous drainage of the anterior and posterior parts of structure 5. (4)

Question 3:

- a) List the vertebral levels of the conus medullaris in the fetus, neonate and adult. (3)
- b) Which side and level does the artery of Adamkiewicz most commonly arise? (2)

CASE 4

Question 1:

Sequential coronal CTPA. Label the structures 1-16. Be specific. (0.5 marks each)

Question 2:

Chest CT in lung windows.

- a) What is the segment and lobe labelled A? (1)
- b) What is the structure labelled B and what two structures does it separate? (1)
- c) What is the structure labelled C and what two structures does it separate? (1)
- d) What is the segment and lobe labelled D? (1)
- e) Name the segments of the left upper lobe. (4)
- f) Name the segments of the left lower lobe. (4)

Question 3:

Name five common or important variants of the coronary arteries. (5)

CASE 5

Question 1:

Abdominal radiographs in three different patients. Label the structures 1-16. Be specific. (0.5 marks each)

Question 2:

Selective coeliac angiogram.

- a) What is structure A? Name its branches. (3)
- b) What is structure B? What does it supply (be specific)? Name its branches. (5.5)
- c) Name the branches of structure C. (2)
- d) What is structure D? What does it supply (be specific)? (1.5)

Question 3:

Name five common or important variants of the inferior vena cava. (5)

CASE 6

Question 1:

Sagittal and transverse pelvic MRI T2 weighted-images. Label the structures 1-16. Be specific. (0.5 marks each)

Question 2:

Transverse 10 minute-delayed phase CT of the pelvis.

- a) Describe the innervation of structure A. (4)
- b) What is structure B? Describe its arterial supply. (5)
- c) What is structure C? Describe its lymphatic drainage. (3)

Question 3:

Name five common or important variants of the inferior mesenteric artery. (5)

CASE 7

Question 1:

Hand X-ray. Label the structures 1-16. Be specific. (0.5 marks each)

Question 2:

Frontal right elbow radiograph in a young patient.

- a) List the average age at which each of the secondary ossification centres appear in order. (6)
- b) List six structures that originate from the structure labeled A. (6)

Question 3:

Name five common or important variants of the carpal bones. (5)

CASE 8

Question 1:

Sequential sagittal knee CT in bony windows. Label the structures 1-16. Be specific. (0.5 marks each)

Question 2:

Pelvic CT in soft tissue window

- a) Name the structure labelled A. Where is its distal attachment? (2)
- b) Name the structure labelled B. At what anatomical landmark is its origin? (2)
- c) Name the structure labelled C. At what anatomical landmarks are its origin and termination? (3)
- d) Name the structure labelled D. What nerve innervates it and what are its roots? (2)
- e) Describe the blood supply to the femoral head. (3)

Question 3:

List five common or important variants of the sciatic nerve? (5)