



The Royal Australian and New Zealand
College of Radiologists®

Anatomy

Paper 2 Exam

Monday, 4 September 2017



CASE 1

Question 1:

Label the structures 1-16. Be specific **(each structure is worth 0.5 marks, total marks 8)**.

Image: foot / ankle

Question 2:

Image: groin

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

Question 3:

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

CASE 2

Question 1:

Label the structures 1-16. Be specific **(each structure is worth 0.5 marks, total marks 8)**.

Image: cervical spine

Question 2:

Image: Spine

- a. Name the structures labelled A, B, C and D (level not required) **(2 marks)**
- b. List the contents of a typical intervertebral (exit) foramen at the level of the mid lumbar spine. **(6 marks)**
- c. Which spinal nerve exits between the C2 and C3 vertebrae? **(1 mark)**
- d. Which spinal nerve exits between the C7 and T1 vertebrae? **(1 mark)**
- e. Which spinal nerve exits between the T6 and T7 vertebrae? **(1 mark)**
- f. Which spinal nerve exits between the L5 and S1 vertebrae? **(1 mark)**

Question 3:

List five (5) common or important variants of the arterial supply to the spinal cord. **(5 marks)**

CASE 3

Question 1:

Label the structures 1-16. Be specific **(each structure is worth 0.5 marks, total marks 8)**.

Image: Chest

Question 2:

Image: pulmonary veins

- a. Name the structures labelled A, B, C and D
(2 marks)
- b. What does structure B supply / drain? **(1 mark)**
- c. What does structure C supply / drain?
(1 mark)
- d. Describe the course of the azygos vein
(5 marks)
- e. Describe the tributaries of the azygos vein
(3 marks)

Question 3:

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

CASE 4

Question 1:

Label the structures A-P. Be specific **(each structure is worth 0.5 marks, total marks 8)**.

Image: pelvis / ureter

Question 2:

Image: urinary bladder

- a. This is a cut dissection specimen photograph of the urinary bladder. Is the wall of the bladder viewed the anterior or posterior wall? **(1 mark)**
- b. Name the structures labelled A, B, C and D. **(2 marks)**
- c. Name the structure outlined by a triangle formed by structures B, C and D and how does it differ from the rest of the internal surface of the urinary bladder? **(3 marks)**
- d. Describe the blood supply to the urinary bladder. **(6 marks)**

Question 3:

List five (5) common or important variants of the male gonads and their development. **(5 marks)**

CASE 5

Question 1:

Label the structures 1-16. Be specific **(each structure is worth 0.5 marks, total marks 8)**.

Image: abdominal

Question 2:

Image: liver segments diagram

- a. Name the structures labelled A, B, C and D. **(2 marks)**
- b. Name the boundaries of the epiploic foramen (of Winslow). **(4 marks)**
- c. Which liver segments are located between the right and middle hepatic veins? **(1 mark)**
- d. Which liver segments does the left hepatic vein drain? **(2 marks)**
- e. What structure separates segments 2 and 3 from segment 4? **(1 mark)**
- f. Which hepatic vein(s) drain segment 1? **(1 mark)**
- g. What structures define the horizontal plane that divides the superior and inferior liver segments? **(1 mark)**

Question 3:

Name five (5) common or important variants of the suprarenal arteries. **(5 marks)**

CASE 6

Question 1:

Label the structures 1-16. Be specific **(each structure is worth 0.5 marks, total marks 8)**.

Image: head, including cav sinuses

Question 2:

Image: brain

- a. List the arteries that supply the regions of the cerebral cortex labelled A, B and C. **(3 marks)**
- b. Describe the arterial blood supply to the structure labelled D. **(3 marks)**
- c. Describe the arterial blood supply to the structure labelled E. **(2 marks)**
- d. Describe the four parts of the middle cerebral artery (excluding branches). **(4 marks)**

Question 3:

Name five (5) common or important variants of the corpus callosum. **(5 marks)**

CASE 7

Question 1:

Label the structures 1-16. Be specific **(each structure is worth 0.5 marks, total marks 8)**.

Image: elbow

Question 2:

Image: Paediatric elbow

- a. List the average age at which each of the secondary ossification centres appear in order. **(6 marks)**

- b. List six structures that originate from the structure labelled A. **(6 marks)**

Question 3:

Name five common or important variants of the arterial supply of the hand. **(5 marks)**

CASE 8

Question 1:

Label the structures 1-16. Be specific **(each structure is worth 0.5 marks, total marks 8)**.

Image: larynx

Question 2:

Image: thyroid

- a. Name the structures labelled A, B, C and D. **(2 marks)**
- b. Describe the arterial blood supply to the thyroid gland. **(4 marks)**
- c. What neck space is the structure B in and what are the contents of the space?

Question 3:

- a. Name three common or important variants of the thyroid gland (excluding vascular variants). **(3 marks)**
- b. Name two common or important variants of the parathyroid glands (excluding vascular variants). **(2 marks)**