



The Royal Australian and New Zealand  
College of Radiologists®

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# Anatomy Paper 2 Exam

**Monday, 29 March 2021**



## Case 1

### Question 1:

Midsagittal T1 weighted-image MRI with IV contrast. Label the structures 1-16. Please be specific. (1/2 mark each)

### Question 2:

- a. Name the structure labelled A.  
Where does it arise?  
What are its tributaries?  
Where does it terminate? (3 marks)
- b. Name the structure labelled B?  
What is its origin?  
Where is it located?  
What does it drain? (3 marks)
- c. Which transverse sinus does structure A and B most commonly drain into? (2 marks)
- d. Name the structure labelled C.  
What bony landmark is it related to? (1 mark)
- e. Name the structure labelled D.  
What structures does it drain? (2 marks)
- f. What does the inferior anastomotic vein (of Labbe) drain into? (1 mark)

### Question 3:

Name five (5) common or important variants of the lateral ventricles.

## Case 2

### Question 1:

Label the structures 1-16. Be specific with both the part of the tooth and the tooth number.  
(1/2 mark each)

### Question 2:

Transverse MRI T2 SPACE of the internal auditory canals. (12 marks)

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

### Question 3:

Name five (5) common or important variants of the paranasal sinuses. (5 marks)

### Case 3

#### Question 1:

Transverse T2 weighted-images MRI through C1 and C2. Label the structures 1-16. Be specific. (1/2 mark each)

#### Question 2:

Lateral diagram of the L2 and L3 vertebrae.

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

#### Question 3:

Name five (5) common or important variants of lumbosacral segmentation. (5 marks)

#### **Case 4**

##### **Question 1:**

Label the structures 1-16. Be specific (1/2 mark each).

##### **Question 2:**

Barium swallow.

- a. Name the structure labelled A causing this depression.  
Name the three other sites of normal narrowing of the oesophagus? (2 marks)
- b. Describe the course of the oesophagus in the chest. (6 marks)
- c. Describe the lymphatic drainage of the oesophagus in the chest. (4 marks)

##### **Question 3:**

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

## Case 5

### Question 1:

Label the structures 1-16. Be specific (1/2 mark each).

### Question 2:

Upper abdominal ultrasound.

- a. Name the labelled structures. (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 do 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 spleen. (5 marks)

## Case 6

### Question 1:

Label the structures 1-16. Be specific (1/2 mark each)

### Question 2:

Scrotal ultrasound

- a. Label structures A, B, C and D. (2 marks)
- b. List the 2 principal arteries that supply C and D and state their usual origins. (4 marks)
- c. List the contents of the spermatic cord. (4 marks)
- d. What is the female equivalent of the spermatic cord in the inguinal canal and where does it attach distally? (2 marks)

### Question 3:

Name five (5) common or important variants of the ureters. (5 marks)

## Case 7

### Question 1:

Label the structures 1-16. Be specific. (1/2 mark each)

### Question 2:

Oblique sagittal T1WI MRI of the shoulder.

- a. What is the structure labelled A?  
What is its innervation and distal attachment?  
(3 marks)
- b. What is the action of the structure labelled B?  
What is the segmental level of its nerve supply?  
(3 marks)
- c. What is the structure labelled C?  
What is its innervation and distal attachment? (3 marks)
- d. Which muscles attach to the structure labelled D? (3 marks)

### Question 3:

Name five (5) common or important variants of the brachial artery. (5 marks)



## **Case 8**

### **Question 1:**

Label the structures 1-16. Be specific (1/2 mark each).

### **Question 2:**

Transverse T2WI MRI with fat saturation of the right knee.

- a. Label structures A, B, C and D. (2 marks)
- b. What are the boundaries of the popliteal fossa? (4 marks)
- c. List the contents of the popliteal fossa. (4 marks)
- d. What are the branches of the structure labelled E? (2 marks)

### **Question 3:**

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