The Royal Australian and New Zealand College of Radiologists®

e-Anatomy

Paper 2 Exam

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CASE 1

Question 1:

Frontal and lateral Y radiographs of the right shoulder. Label the structures 1-16. Please be specific. **(1/2 mark each)**

Question 2:

Transverse T1 weighted-image of the left mid forearm.

- **a)** Name structures A, B, C and D. **(2 marks)**
- **b)** What are the attachments, innervation and actions of muscle C? **(6 marks)**
- **c)** What are the other two muscles in the same muscular compartment as structure C? **(2 marks)**
- **d)** What is the innervation structure B? **(1 mark)**
- **e)** Where does structure D begin proximally? **(1 mark)**

Question 3:

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

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CASE 2

Question 1:

Two transverse ECG-gated coronary artery CT images with intravenous contrast. Label the structures 1-16. Please be specific. **(1/2 mark each)**.

Question 2

Diagram of the tracheobronchial tree (anterior).

- **a)** Name structures A, B, C and D. **(2 marks)**
- **b)** What vertebral level is structure B usually located and name 3 other anatomical landmarks at the level? **(4 marks)**
- **c)** Describe 3 differences between structures A and D. **(3 marks)**
- **d)** What are the segments of structure D? **(3 marks)**

Question 3:

Name five (5) common or important variants of the pulmonary veins. **(5 marks)**

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CASE 3

Question 1:

Two sagittal abdominal CT images with intravenous contrast in portal venous phase. Label the structures 1-16. Please be specific. **(1/2 mark each)**

Question 2:

Oblique epigastric ultrasound.

- **a)** Name structures 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 peritoneal reflection 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 pancreatic ducts. **(5 marks)**

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CASE 4

Question 1:

Lateral angiogram of the head and face. Label the structures 1-16. Please be specific. **(1/2 mark each)**

Question 2:

Facial dissection specimen photograph.

- **a)** Name the labelled structures A, B, C and D. **(2 marks)**
- **b)** Which cranial nerve passes through structure D and what are its branches in the face? **(6 marks)**
- **c)** Where does structure C enter the oral cavity? **(1 mark)**
- **d)** What is the first order lymph node draining the skin of structure A? **(1 mark)**
- **e)** What are the superior and inferior borders of the cervical lymph node level III (3)? **(2 marks)**

Question 3:

Name five (5) common or important variants of the thyroid gland excluded vascular variants. (**5 marks)**

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CASE 5

Question 1:

Sagittal T2 of the spine. Label the structures 1-16. Please be specific. **(1/2 mark each)**

Question 2:

Diagram of a typical intervertebral foramen.

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

Question 3:

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

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CASE 6

Question 1:

Transverse non contrast CT images of the head. Label the structures 1-16. Be specific.
(1/2 mark each)

Question 2:

Coronal T1 weighted-image of the orbits.

- **a)** Name the labelled structures A, B, C and D. **(2 marks)**
- **b)** Which nerves enter the orbit through the tendinous annulus of Zinn? **(5 marks)**
- **c)** Structure B passes through which skull foramen and with which vessel? **(2 marks)**
- **d)** Which nerve innervates structure C? **(1 mark)**
- **e)** Which sulci separate structure D from the parietal and temporal lobes? **(2 marks)**

Question 3:

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

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CASE 7

Question 1:

Coronal and transverse proton density MRI of the right ankle. Label the structures 1-16. Please be specific. **(1/2 mark each)**

Question 2:

Transverse T2 fat sat MRI 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:

Name five (5) common or important variants of the superficial venous drainage of the lower limb. **(5 marks)**

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CASE 8

Question 1:

Transvaginal pelvic ultrasound and AP hysterosalpingogram. Label the structures 1-16. Please be specific. **(1/2 mark each)**

Question 2:

Testicular ultrasound.

- **a)** Label structures A, B, C and D. **(2 marks)**
- **b)** List 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? **(2 marks)**

Question 3:

List five (5) common or important uterine variants. **(5 marks)**

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