

EACVI CCT Certification

Sample Questions

The following slides contain examples of questions from past EACVI CCT Certification exams



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Q 1

"Pitch" is a parameter used in spiral CT scanning.

Which of the following CT spiral pitch values would lead to oversampling?

A 0.2

B 1.0

C 1.1

D 1.2

E 3.2



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Q 2

Which of the following changes will improve the spatial resolution of CT images?

A Decrease the size of the focal spot

B Increase the kilovolts

C Increase the pitch

D Increase the slice thickness

E Use a smoother kernel



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Q 3

Which of the following is correct regarding spatial resolution?

A It is determined by the detector bank size

B It is independent of pixel size

C It is inferior to the resolution of MR

D It is not affected by collimator width

E It is the ability to differentiate two adjacent objects



Q 4

An 80-year-old man with breathlessness undergoes CT to assess suitability for transcatheter aortic valve replacement.

Which of the following should be assessed?

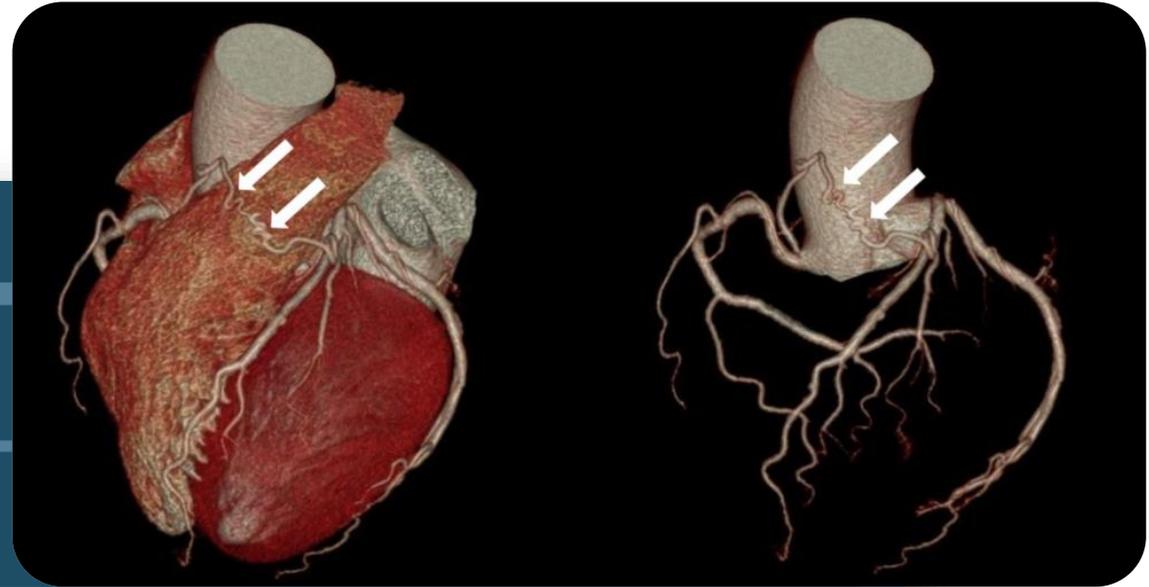
- A Distance between the annulus and femoral artery
- B Distance between the coronary arteries
- C Identification of significant stenoses in the iliac vessels**
- D Identification of significant stenoses in the popliteal vessels
- E Nothing, age precludes this treatment



Q 5

What is the structure indicated by the white arrows?

- A Ebstein's ring
- B Eisenmenger artery
- C Eustachian artery
- D Thebesian ring
- E Vieussens' ring



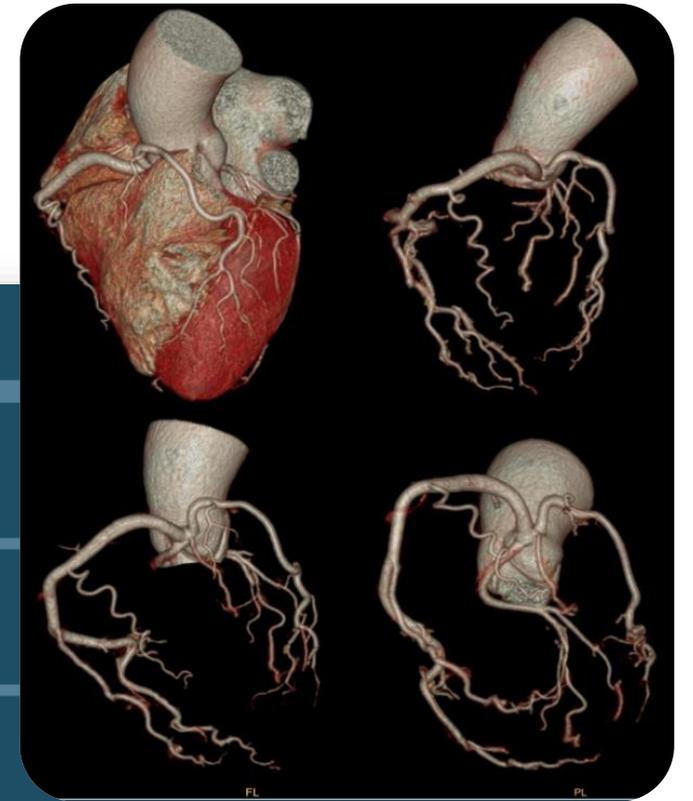
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Q 6

What is the most likely diagnosis?

- A anomalous origin of left coronary artery from the pulmonary artery
- B atresia of the left main coronary artery
- C duplication of the left circumflex coronary artery
- D single coronary artery from the left coronary sinus with retro-aortic course of circumflex coronary artery
- E single coronary artery from the right coronary sinus



Q 7

Which of the following statements is most appropriate regarding coronary artery calcium scoring (CACs)?

A calcium score scanning should always be performed with the settings of 120kV and 150 mAs

B coronary artery calcium should be evaluated and reported on all noncontrast chest CT examinations

C coronary calcium scores >1000 can be associated with non-obstructive coronary artery disease

D electron beam CT uses a rotating X-ray tube for image acquisition

E electron beam CT uses a rotating X-ray tube for image acquisition



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Q 8

The best visualization of coronary vessels is usually in late diastole. Which of the following vessels is occasionally better visualized in systole?

A Left anterior descending (LAD)

B Left circumflex artery (LCX)

C Left main artery (LM)

D None of the vessels

E Right coronary artery (RCA)



Q 9

A 29-year-old woman with an extracardiac Fontan circulation presents with a venous ulcer on her right leg. She is referred for a cardiac CT scan for further assessment.

Which structures should be optimally opacified?

A The ascending aorta

B The cavopulmonary circulation

C The modified Blalock-Taussig shunt

D The pulmonary veins

E The right ventricle



Q 10

Low-attenuation areas may be seen within the myocardium on non-contrast CT images in patients with chronic coronary artery disease.

What do those regions typically represent?

- A Artefacts due to patient motion during the acquisition
- B Calcium deposition secondary to previous myocarditis
- C Hibernating myocardium
- D Inducible myocardial ischaemia due to critical coronary artery stenosis
- E Non-viable myocardial scar



Q 11

Cardiac CT is superior to echocardiography for evaluation of which conditions in the context of infective endocarditis?

A aortic regurgitation severity

B left-sided valvular vegetations

C mitral regurgitation severity

D perivalvular abscesses and pseudoaneurysms

E right-sided valvular vegetations

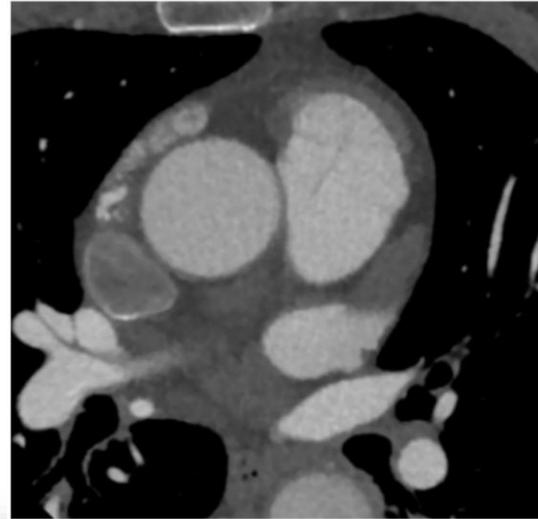


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Q 12

A 64-year-old woman with a history of atrial fibrillation and coronary artery disease underwent a coronary CT angiogram. An axial tomographic slice is shown.



Which of the following techniques would be the best to further evaluate the abnormality shown?

A delayed imaging

B free breathing acquisition

C non-contrast CT

D prone patient position

E re-injection of contrast medium



Q 13

A patient with a history of multiple previous pulmonary emboli presents with recurrent breathlessness and pleuritic chest pain. A CT pulmonary angiogram is performed.

Which of the following is most indicative of an acute rather than chronic pulmonary embolus?

- A Intravascular bands and webs
- B Intravascular filling defect with peripheral halo of contrast opacification**
- C Reduced calibre of the distal vessels
- D Right ventricular dilation
- E Systemic collateralization to the pulmonary vasculature



Q 14

Compared to other imaging modalities such as MRI and PET, which of the following is unique about cardiac CT?

A High exam cost

B Limited availability

C Low spatial resolution

D Not dependent on adequate heart rate control

E Short acquisition time



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