Examination of the Cardiovascular System: Summary

“Examine the heart”
Clarify whether the examiner wants you to:
- Examine the cardiovascular system or
- Examine the praecodium or
- Auscultate the heart.

Remember
There is acceptable variation in practice.
Check if the examiner wants a running commentary.
Introduce yourself and ask permission.
Check the patient is comfortable, at 45 degrees with neck muscles relaxed.
Routinely checking for radio-femoral delay is probably not justified.
Reasonable to say you would check this later if hypertension or systolic murmur noted.

General
? anaemic ? cyanosis ? breathless at rest

Hands
? signs of endocarditis: ? clubbing ? splinter haemorrhages

Pulse
Check both radial pulses present (? AV fistula for dialysis)
Then rate, rhythm, character, volume
Collapsing pulse test while
Looking at neck for visible collapsing pulse

BP
Ask for or measure BP

JVP
Look for pulsation behind sternomastoid

Optional extras
If JVP seen, gentle compression eliminates pulsation
If not seen, light pressure at base of neck to fill external jugular; then release of pressure to demonstrate emptying (proves pressure not high)

Praecordium

Inspect
Midline scar ? CABG ? valve replacement
Intercostal scar at apex ? closed mitral valvotomy
? apex beat visible

Palpate
Aortic and pulmonary areas, left sternal edge and apex

Auscultation
All areas including neck; bell and diaphragm in each area
Mitral area with bell and patient turned onto left side
Aortic area and left sternal edge, using diaphragm with patient sitting forward at end of expiration

Extras
If appropriate, look for ankle and sacral oedema and auscultate lung bases
Background Information

General examination
- Anaemia, cyanosis, breathlessness
- Hands for clubbing and splinters
- Signs of endocarditis:
  - 2 in the hands (clubbing and splinters)
  - 1 in the heart (changing murmurs)
  - 2 in the abdomen (splenomegaly, microscopic haematuria)
  - plus a few rarities (Osler, Roth, Janeway etc)

Stages of clubbing
- Increased fluctuancy (of nail bed)
- Loss of angle
- Increased curvature
- Drum stick appearance (expansion of terminal phalanx)

Examination
- Anaemia, cyanosis, breathlessness
- Hands for clubbing and splinters
- Pulse- rate, rhythm, character, volume
- Collapsing pulse test
- Ask for or measure blood pressure
- Neck for collapsing pulse; then JVP
Testing for a Collapsing Pulse

Jugular venous pulse
- Neck relaxed as internal jugular is behind sterno-mastoid which should be relaxed
- Best to look from in front- you are looking for a pulsation not a visible vein
- JVP usually has a “double pulsation” compared with arterial pulse- may appear to be “flickering”
- If raised, check for sacral or ankle oedema

Praecordium
- Apex beat (look for scars as well as feel)
- Left parasternal (for right ventricular impulse)
- Aortic and pulmonary areas for thrills
- Auscultation- bell and diaphragm from apex to neck
- Patient on left side with bell for mitral stenosis
- Patient sitting forward, at the end of expiration, with diaphragm (for aortic regurgitation)

Auscultation
- There are separate notes on auscultatory findings ( “Cardiology”) plus
- A video programme demonstrating the common murmurs