Cardiovascular Examination and History

1. **During routine cardiovascular auscultation, you hear a murmur in the left, second intercostal space at the parasternal border. Which of the following is most likely to be a part of your initial differential?**
   a. Tricuspid valve stenosis
   b. Mitral valve prolapse
   c. Aortic sclerosis
   d. Pulmonary stenosis
2. **Which presentation is most indicative of stable angina?**
   a. Wheezing during exercise, relieved by inhaled salbutamol.
   b. Central crushing chest pain radiating up to the jaw and down the left arm for 60 minutes .
   c. Chest tightness during exercise, lasting about five minutes and relieved by rest.
   d. Burning chest discomfort at night, following a late meal.
3. **A 63-year-old woman gives a history of exertional angina and two episodes of syncope. Clinical examination reveals an ejection systolic murmur that radiates to the carotids and a soft S2 heart sound. Which of the following is the most likely diagnosis?**
   a. Aortic stenosis
   b. Tricuspid stenosis
   c. Mitral stenosis
4. **A 76-year-old man with known ischaemic heart disease and hypertension presents with worsening chest pain on exertion and syncopal episodes. Cardiovascular examination reveals a raised jugular venous pressure (JVP), bibasal coarse crackles in the lungs, a laterally displaced apex beat and a harsh ejection systolic murmur heard throughout the precordium and when auscultating the carotid arteries. Which of the following clinical signs is most likely to be found when examining his pulse?**
   a. Pulsus paradoxus
   b. Bounding pulse
   c. Slow rising pulse
   d. Collapsing pulse
   e. Irregularly irregular pulse
5. **A 55-year-old man with aortic regurgitation Which of the following clinical signs is most likely to be found when examining the pulse?**
   a. Irregular irregular pulse
   b. Bounding pulse
   c. Pulsus paradoxus
   d. Collapsing pulse
   e. Slow rising pulse
6. **A 25-year-old optical technician comes to your clinic for evaluation of fatigue. As part of your physical examination, you listen to her heart and hear a murmur only at the cardiac apex. Which valve is most likely to be involved, based on the location of the murmur?**
   a. Mitral
   b. Tricuspid
   c. Aortic
   d. Pulmonic
7. **In certain situations, such as the intensive care unit, the blood pressure is measured by:**
   a. Using a sphygmomanometer.
   b. Using a sphygmomanometer and a stethoscope.
   c. Using an indwelling intra-arterial catheter connected to a pressure sensor.
   d. All of the above.
8. **A 58-year-old teacher presents to your clinic with a complaint of breathlessness with activity. The patient has no chronic conditions and does not take any medications, herbs, or supplements. Which of the following symptoms is appropriate to ask about in the cardiovascular review of systems?**
   a. Abdominal pain
   b. Orthopnea
   c. Hematochezia
   d. Tenesmus
9. **Which of the following is an example of the proper way of which the Blood Pressure is recorded?**
   a) BP 146/92 mmHg, right arm.
   b) BP 146/92 mmHg.
   c) BP 146/92 mmHg, right arm, supine.
   d) BP 92/146 mmHg, left arm, upright.

10. **You are screening people at the mall as part of a health fair. The first person who comes for screening has a blood pressure of 132/85. How would you categorize this?**
    a) Normal
    b) High normal
    c) Grade 1 hypertension
    d) Grade 2 hypertension
11. **Which of the following is not a cause of palpitation?**
    a) Sinus arrhythmia
    b) Atrial fibrillation
    c) Atrial extrasystoles
    d) Heart Failure
    e) Cardiac tamponade
12. **Which of the following is associated with atrial fibrillation?**
    a) Pulse deficit
    b) Pulsus alternans
    c) Pulsus paradoxsus
    d) Pulsus bisferiens
    e) Collapsing pulse
13. **The most important factor in cuff choice is:**
    a) Arm length
    b) Height
    c) Weight
    d) Arm circumference
14. **A 40-year-old female is found to have an early diastolic murmur heard during expiration at the left sternal edge. When gentle pressure is applied to the nail, a flushing of her nail bed is noted with each heartbeat. What is the name of the clinical sign observed?**
    a) Quincke's sign
    b) Duroziez's sign
    c) Traube's sign
    d) Corrigan's sign
    e) Muller's sign

15. **Which of these features suggest that a pulsation in the neck is arterial?**
    a) Rapid inward movement
    b) Positive for Abdominojugular reflux
    c) No variation with posture
    d) Pressure in the root of the neck reduces the impulse
16. **Which of these is not necessary when examining the jugular venous pulse?**
    a) Patient's neck muscles should be relaxed
    b) Timing the pulsation with the radial pulse
    c) Good lighting
    d) Patient lying at 45 degree angle
17. **A palpable left parasternal impulse suggests which abnormality?**
    a) Right ventricular hypertrophy
    b) Aortic stenosis
    c) Aortic regurgitation
    d) Left ventricular hypertrophy
18. **In a patient with chest pain which of these features is most suggestive of a myocardial infarction?**
    a) Very severe pain
    b) Sweating and vomiting
    c) Pain has lasted for over a week
    d) Pain is sharp like a knife
19. **Which of the following statements is FALSE regarding the Jugular Venous Pressure?**
    a) If right atrial pressure is low, the patient may have to lie flat for the JVP to be seen.
    b) The JVP is usually best seen on the patient's right side.
    c) In case of SVC obstruction by lung cancer the abdominojugular test will be positive.
    d) The JVP is seen best if the sternocleidomastoid muscles and overlying skin are relaxed.
20. **Which of the following signs refers to a paradoxical rise of JVP with respiration?**
    a) Kussmaul's sign
    b) Quincke's sign
    c) Corrigan's sign
    d) Muller's sign

21. **Which of the following is TRUE about the JVP?**
    a) One peak of the waveform per heart beat.
    b) The JVP is the vertical height in cm(s) between the upper limit of the venous pulsation and the sternal angle.
    c) The JVP normally rises with inspiration.
    d) It has a palpable pulsation.
    e) None of the above.

22. All of the following are causes of elevated JVP EXCEPT:

a) Pulmonary embolism
b) Chronic pulmonary hypertension
c) Heart failure
d) SVC obstruction
e) None of the above.

23. Elevated JVP with negative abdominojugular reflex is best seen in:

a) Cardiac tamponade
b) SVC obstruction by lung cancer
c) Heart failure
d) Pulmonary embolism
e) All of the above

24. Kassmaul's sign is seen in all of the following EXCEPT:

a) Severe right ventricular failure
b) Pericardial constriction
c) Recent pulmonary embolism
d) Constrictive cardiomyopathy
e) None of the above

25. In all of the following patients the apex beat could be diffusely displaced inferiorly and laterally, EXCEPT in:

a) Patient with dilated cardiomyopathy
b) Patient with asthma
c) Patient with decompensated aortic stenosis
d) Patient with severe aortic regurgitation
e) None of the above patients

26. All of the following produce a pansystolic murmur except?

a) Tricuspid regurgitation
b) Aortic regurgitation
c) Ventricular Septal Defect

27. Which of the following increases the risk of cardiovascular diseases?

a) Sister 60 years old diagnosed with MI.
b) Father 60 years old diagnosed with MI.
c) Two brothers above 67 diagnosed with MI.
d) All of the above.

28. All are parts of the past medical history EXCEPT:

a) Previous admissions
b) Allergy
c) Blood transfusion
d) Details of the chief complaint

29. A patient with localized chest pain that is relieved by leaning forward, you should think of:

a) MI
b) Pneumonia
c) Unstable angina
d) Pericarditis
e) Aortic dissection

30. The aortic valve sound is best heard at:

a) 2nd right intercostal space.
b) 4th left intercostal space.
c) 2nd left intercostal space.
d) 4th left intercostal space.

31. The apex beat is best heard at :

a) 5th ICS at the left midclavicular line
b) 2nd ICS right to the sternum
c) 2nd ICS left to the sternum
d) 3rd ICS left to the sternum
e) axilla

32. The third heart sound (S3) is a normal physiological finding in all of the following EXCEPT:

a) Children.
b) Young adults, febrile patients.
c) During pregnancy.
d) After the age of 40 years.

33. The fourth heart sound (S4) can be heard in all of the following conditions EXCEPT:

a) Left ventricular hypertrophy
b) Aortic stenosis
c) Atrial fibrillation
d) Hypertrophic cardiomyopathy

34. The following heart sound is considered always pathological when it is heard:

a) S1
b) S2
c) S3
d) S4

35. The third heart sound is best heard at:

a) The apex using the diaphragm.
b) The left lower sternal border using the bell.
c) The apex using the bell.
d) The left lower sternal border using the diaphragm.

36. **While listening for murmurs, to determine if it is systolic or diastolic, you should:**
    a) Identify the first and second heart sounds by listening only.
    b) Palpate the patient's carotid pulse while listening to the precordium to determine the ventricular systole.
    c) Palpate the patient's radial pulse while listening to the precordium to determine the ventricular systole.
    d) All of the above could be done.
37. **In all of the following patients the apex beat could be diffusely displaced inferiorly and laterally, EXCEPT in:**
    a) Patient with dilated cardiomyopathy
    b) Patient with left ventricular hypertrophy
    c) Patient with decompensated aortic stenosis
    d) Patient with severe aortic regurgitation
38. **Forceful but undisplaced apical beat is seen in:**
    a) Patient with dilated cardiomyopathy
    b) Patient with asthma
    c) Patient with decompensated aortic stenosis
    d) Patient with hypertension and left ventricular hypertrophy
    e) Patient with severe aortic regurgitation
39. **During cardiovascular examination, we auscultate into the left axilla to identify which of the following?**
    a) Fourth heart sound
    b) Ejection systolic murmur of aortic stenosis
    c) Radiation of pansystolic murmur of mitral regurgitation
    d) Mid-diastolic murmur of mitral stenosis
40. **During cardiovascular examination we auscultate for the murmur of aortic regurgitation by:**
    a) Asking the patient to roll into the left side, and listen over the apex of the heart when the patient hold his breath.
    b) While the patient is reclining at 45 degree, ask him to hold his breath and listen over the right second intercostal space.
    c) Ask the patient to sit and lean forward, and to hold his breath at expiration listen over the right second intercostal space then the left sternal edge.
    d) None of the above.
41. **During the cardiovascular examination, while assaulting for heart murmurs, you should identify and describe which of the following?**
    a) Timing and duration
    b) Character and pitch
    c) Intensity
    d) Location and radiation
    e) All of the above
42. **A murmur is classified as grade 5 of intensity when it is:**
    a) Very loud, often heard over a wide area, with thrill
    b) Easily heard; no thrill
    c) A loud murmur, with a thrill
    d) Extremely loud, heard without a stethoscope
43. **All of the following are causes of ejection systolic murmur EXCEPT:**
    a) Ventricular septal defect
    b) Aortic stenosis
    c) Pulmonary stenosis
    d) Atrial septal defect
    e) Hypertrophic obstructive cardiomyopathy
44. **Late systolic murmur occur in:**
    a) Atrial septal defect
    b) Mitral regurgitation
    c) Leaking mitral prosthesis
    d) Mitral valve prolapse
45. **S1 normal heart sound is due to :**
    a) Closure of AV valve
    b) Closure of pulmonary and aortic valve
    c) Opening of AV valve
    d) Opening of pulmonary and aortic valve
    e) Hypertension
46. **Which of the following is false about the third heart sound (S3):**
    a) It is pathological after the age of 40
    b) It occurs in heart failure
    c) It is low pitched
    d) It occurs due to forceful atrial contraction
47. **Diastolic murmur is heard in:**
    a) Aortic stenosis
    b) Mitral regeurgitation
    c) Pulmonary stenosis
    d) Tricuspid regurgitation
    e) Mitral stenosis

48. The valvular disease that cause pansystolic murmur is:

a) mitral stenosis
b) mitral regurgitation
c) aortic stenosis
d) aortic regurgitation
e) patent ductus arteriosus

49. All of the following are signs of infective endocarditis EXCEPT:

a) roth's spot
b) splinter hemorrhage
c) xanthelasma
d) clubbing
e) osler nodules

50. You are conducting a workshop on the measurement of jugular venous pulsation. As part of the instructions, you are told to make sure that you can distinguish between the jugular venous pulsation and the carotid pulse. Which one of the following characteristics is typical of the carotid pulse?

a) Palpable
b) Soft, rapid, inward movement
c) Pulsation eliminated by light pressure on the base of the neck
d) Level of pulsation changes with changes in position

51. A 68-year-old mechanic presents to the emergency room for shortness of breath. You are concerned about a cardiac cause and measure his jugular venous pressure (JVP). It is elevated. Which one of the following conditions is a potential cause of elevated JVP?

a) Left-sided heart failure
b) Mitral stenosis
c) Constrictive pericarditis
d) Aortic aneurysm

52. You are concerned that a patient has an aortic regurgitation murmur. Which is the best position to accentuate the murmur?

a) Upright
b) Upright, but leaning forward
c) Supine
d) Left lateral

53. Which of the following is true about the splitting of the second heart sound?

a) It is best heard over the pulmonic area with the bell of the stethoscope.
b) It normally increases with exhalation.
c) It is best heard over the apex.
d) It does not vary with respiration.

54. How should you determine whether a murmur is systolic or diastolic?

a) Palpate the carotid pulse.
b) Palpate the radial pulse.
c) Judge the relative length of systole and diastole by auscultation.
d) Correlate the murmur with a bedside heart monitor.

55. A 65 year old man is admitted after a collapse when running for the bus. On examination, he has a sustained heaving apex beat that is slightly displaced and an ejection systolic murmur. The patients described above have come to see you. Which of these clinical features are they most likely to demonstrate?

a) Systolic blood pressure of 220 mmHg
b) Tapping apex beat
c) Chest pain eased by glyceryl trinitrate in 5 minutes
d) Third heart sound
e) Slow-rising carotid pulse

56. The patient is a 60 year old man who smokes 20 per day. He comes to clinic complaining of a tight pain in the center of his chest which comes on when he walks uphill. The patients described above have come to see you. Which of these clinical features are they most likely to demonstrate?

a) Tapping apex beat
b) Chest pain eased by glyceryl trinitrate in 5 minutes
c) Breathlessness eased by lying flat
d) Chest pain eased by glyceryl trinitrate after an hour

57. Regarding Peripheral Arterial Diseases (PAD) all of the following statements is true EXCEPT:

a) Only one-quarter of patients with PAD are symptomatic
b) Hemodynamically significant lower limb ischemia is defined as an ankle-to-brachial pressure index of < 0.9
c) PAD affects the legs eight times more commonly than the arms.
d) PAD does not affect the medical and surgical treatment for other conditions.

58. Which of the following is the correct sequence of cardiovascular examination?

a) Inspection, palpation, percussion, and auscultation.
b) Palpation, inspection, percussion, and auscultation.
c) Inspection, palpation, and auscultation.
d) Palpation, inspection, and auscultation.

59. A 52-year-old computer analyst presents to the office for a checkup. He is doing well except that he has noticed increasing shortness of breath with physical exertion, so he has cut down on his recreational activities. On auscultation of the heart, you hear a blowing, medium-pitched pansystolic murmur at the apex. It radiates to the left axilla and does not change with inspiration. This murmur is most likely:

a) Mitral regurgitation
b) Tricuspid regurgitation
c) Ventricular septal defect
d) Aortic stenosis

60. All of these are signs of lower limb ischemia EXCEPT:

a) pulselessness
b) paralysis
c) coldness
d) pallor
e) pyrexia

61. Which of the following statements is False about Compartment Syndrome?

a) Peripheral pulses are usually present.
b) Occurs where there is increased pressure within the fascial compartments of the limb that compromises the perfusion and viability of muscle and nerves.
c) Severe pain relived by opioids.
d) None of the above.

62. A pulsatile mass below the umbilicus suggests:

a) An iliac aneurysm
b) Abdominal Aortic Aneurysm
c) Saddle embolism occluding the aortic bifurcation
d) All of the above

63. Patients with critical limb ischemia like rest pain and tissue loss, typically have which of the following?

a) An Ankle Brachial Pressure Index < 0.4.
b) A positive Buerger's test.
c) An ankle pressure < 50 mmHg.
d) All of the above.

64. Which one is WRONG about peripheral pulses :

a) The pulse of the posterior tibial artery is examined between the lateral malleolus and the heel.
b) dorsalis pedis pulse examined in the middle of the dorsum of the foot lateral to extensor hallucis longus muscle.
c) popliteal pulse examined in the popliteal fossa.
d) posterior tibial artery examined between the medial malleolus & the heel.

65. Which of the following is not assessed by pulse measuring:

a) Rate.
b) Rhythm.
c) Volume.
d) Duration.
e) Character.

66. All of the following are common presenting symptoms of lower limb venous diseases EXCEPT:

a) Chronic venous insufficiency and ulceration.
b) Superficial thrombophlebitis.
c) Blue toe.
d) Varicose veins.
e) DVT.

67. Chronic venous ulceration is NOT associated with:

a) Shallow ulcers with pink to yellow-green color.
b) Irregular margins.
c) Lipodermaosclerosis.
d) Shiny, hairless trophic skin changes.

68. An ulcer with regular margins, and shiny hairless surrounding skin, is mainly:

a) A neuropathic ulceration.
b) A venous alceration.
c) An arterial ulceration.
d) All of the above.

69. One of these is least suggestive of DVT:

a) Distended superficial veins.
b) Pain.
c) Calf tenderness.
d) Increased temperature.
e) Shiny hairless skin.

70. All of the following are characteristics of venous ulcers EXCEPT:

a) Warm.
b) Lipodermatosclerosis.
c) Base with granulation tissue.
d) The pain (if present) is improved on dependency.
e) Women predominance