

1. A method used to compensate for the attenuation of received ultrasound signals as a function of depth is:

- A. Overall gain
- B. Pulser power

C. Time gain compensation

- D. Transmit power

2. Amplification of received signals is controlled by:

- A. Output power

B. Overall gain

- C. Pulser power
- D. Transmit power

3. The Doppler control that eliminates low-level frequency shifts is called:

A. Filter

- B. Gain
- C. Output power
- D. Sample volume length

4. Which method would best allow visualization of shunt flow across an atrial septal defect?

- A. M-mode echocardiography
- B. Two-dimensional echocardiography

C. Contrast echocardiography

- D. Stress echocardiography

5. The recommended method for determining left ventricular volumes by two-dimensional echocardiography is:

A. Method of discs

- B. Single plane area-length
- C. Bullet method
- D. Prolate ellipse method

6. Left Atrial dimension is measured on M-mode during:

- A. Systole

B. End-systole

- C. Diastole
- D. End-diastole

7. The normal range for the interventricular septum and the posterior wall of the left ventricle at end-diastole is:

A. 6 to 11 mm

B. 6 to 11 cm

C. 0.6 to .011 mm

D. 60 to 110 mm

8. The E-F slope of the M-mode of the anterior mitral valve leaflet in mitral valve stenosis is:

A. Decreased

B. Increased

C. Notched

D. Unaffected

9. A pressure overload of the right ventricle may produce all the following echocardiographic findings EXCEPT:

A. D-shaped left ventricle

B. Right ventricular dilatation

C. Right ventricular hypertrophy

D. Small, protected right ventricle

10. A right ventricle volume overload pattern is associated with all the following echocardiographic findings EXCEPT:

A. Abnormal interventricular septal motion

B. Dilatation of the right ventricle

C. Pancaking of the interventricular septum during ventricular diastole

D. Pancaking of the interventricular septum during ventricular systole

11. The formula used to calculate ejection fraction is:

A. $EDD - ESD$

B. $EDV - ESV$

C. $EDD - ESD \div EDD \times 100$

D. $EDV - ESV \div EDV \times 100$

12. The effect inspiration has on venous return to the right atrium is:

A. Decrease

B. Increase

C. Depends on the depth of inspiration

D. No effect

13. Left ventricular wall segments that are usually visualized in the apical four-chamber view include all of the following EXCEPT:

A. Anterior wall of the left ventricle

B. Apex

C. Interventricular septum

D. Lateral wall of left ventricle

14. The normal mitral valve area is:

A. 1 to 3 cm²

B. 3 to 5 cm²

C. 4 to 6 cm²

D. 7 to 9 cm²

15. The correct order for the branches of the aortic arch (from right to left) is:

A. Right subclavian, left subclavian, left common carotid

B. Right brachiocephalic, left brachiocephalic, left common carotid

C. Right brachiocephalic, left common carotid, left subclavian

D. Right Sinus of Valsalva, right innominate, left innominate

16. The normal volume of clear serous fluid in the pericardial sac is:

A. 20 to 50 cc

B. 20 to 50 L

C. 200 to 500 cc

D. 200 to 500 L

17. The volume or pressure that exists in the ventricle at end-diastole is called:

A. Preload

B. Afterload

C. No-load

D. Sumload