MULTIPLE CHOICE

OB NORMAL FETAL ANATOMY SURVEY - PRACTICE SET - ANSWER KEY

PROPOSED FOR REVIEW - questions are the author's verbatim Q&A; distractors are auto-selected from other answers in the same bank and must be checked by a subject-matter reviewer (a distractor could coincidentally be correct). Not authoritative assessment content.

1. Which feature differentiates the cerebellum from adjacent posterior-fossa structures on the transcerebellar plane?

A. Single midline cystic structure without hemispheres
B. Crescent-shaped hypoechoic band along the calvarium
C. Dumbbell or figure-eight shape with two hemispheres joined by a midline echogenic vermis
D. Triangular echogenic structure anterior to the thalami

2. During an anatomy survey, the sonographer documents the spine in which standard planes?

A. Only sagittal
B. Only coronal
C. Only axial
D. Sagittal, axial (transverse), and coronal

3. A sonographer documents a normal four-chamber view. Which of the following is an expected finding?

A. Apex of the heart points to the fetal right
B. Apex of the heart points to the fetal left at approximately 45 degrees
C. Right ventricle is markedly smaller than the left
D. Heart occupies more than half of the thoracic area

4. On the four-chamber view, which structure is the classic landmark used to identify the morphologic right ventricle?

A. Two papillary muscles attached to the free wall
B. Moderator band near the apex
C. A smooth, non-trabeculated apical surface
D. An atrioventricular valve inserting closer to the cardiac base than the opposite valve

5. At the level of the abdominal circumference measurement, which vascular landmark is required to be visualized?

A. Junction of the umbilical vein with the left portal vein
B. Confluence of the hepatic veins with the IVC
C. Bifurcation of the main portal vein into right and left branches
D. Bifurcation of the abdominal aorta

6. Failure to visualize the fetal bladder on a routine survey at 20 weeks should prompt which next-best step?

A. Conclude bilateral renal agenesis without further imaging
B. Reassess after a short interval (typically 30 to 45 minutes) to allow bladder filling
C. Document as normal and move on
D. Immediately recommend fetal MRI

7. Which finding is expected on a normal sagittal view of the diaphragm?

A. A thin hypoechoic curvilinear band separating the lung from the liver or stomach
B. Liver visualized within the thorax adjacent to the heart
C. Discontinuous diaphragm with bowel above the heart
D. Stomach visualized within the thorax above the heart

8. The fetal bladder should be visualized as which sonographic finding on a normal anatomy survey?

A. Cystic structure superior to the kidneys
B. Anechoic structure in the thorax
C. Echogenic structure in the right upper quadrant
D. Anechoic structure in the midline pelvis with umbilical arteries coursing around it

9. Which sonographic appearance is characteristic of normal female external genitalia in the second trimester?

A. Three parallel echogenic lines representing the labia
B. Cystic structure between the thighs
C. Scrotum with two testes
D. Single hyperechoic midline structure projecting from the perineum

10. Which finding is required to confirm a normal cord insertion site at the fetal abdomen?

A. Cord entering at the level of the bladder
B. Cord entering a sac of bowel outside the abdominal wall
C. Cord entering to the right of midline with herniated liver
D. Cord entering the anterior abdominal wall with no surrounding mass

11. Which sonographic appearance is normal for fetal kidneys in the second trimester?

A. Bilateral cystic structures with no parenchyma
B. Bilateral paraspinal structures with hypoechoic cortex and central echogenic sinus
C. Bilaterally echogenic kidneys equal to liver
D. Unilateral kidney with contralateral renal fossa empty

12. Which Doppler/imaging finding confirms ductus venosus identification on a sagittal abdominal view?

A. Small vessel shunting from the umbilical vein to the inferior vena cava
B. Shunt from the IVC to the umbilical vein
C. Shunt from the umbilical artery to the descending aorta
D. Shunt from the hepatic artery to the portal vein

13. On the transventricular axial view of the fetal brain, the lateral ventricle is measured at the level of the atrium. Which structure normally fills the atrium and provides the echogenic reference for that measurement?

A. Thalamus
B. Choroid plexus
C. Cavum septi pellucidi
D. Cerebellar vermis

14. True or false: The cavum septi pellucidi is expected to be seen and documented as part of the routine second-trimester fetal anatomy survey.

A. True
B. False

15. Which finding describes the normal cisterna magna on the transcerebellar view?

A. Anechoic space posterior to the cerebellum
B. Cystic dilation continuous with the fourth ventricle and absent vermis
C. Anechoic space anterior to the thalami
D. Echogenic mass posterior to the cerebellum

16. On the axial view through the orbits, which finding is normal?

A. Two orbits widely separated with absent interorbital tissue
B. Two orbits of equal size and symmetric position
C. Single midline orbit
D. Two orbits of unequal size

17. Which view is best for measuring the nuchal fold thickness in the second trimester?

A. Transcerebellar plane angled to include the occipital bone and skin
B. Transventricular plane
C. Coronal plane through the orbits
D. Sagittal mid-line plane through the corpus callosum

18. Which structure provides a key landmark for confirming the four-chamber view is at the correct level?

A. Visualization of the cisterna magna
B. Visualization of the orbits
C. Visualization of the kidneys
D. Visualization of at least one complete rib on each side of the thorax

19. Which fluid-filled midline structure should be routinely identified in the fetal brain between approximately 18 and 37 weeks as part of the second-trimester anatomy survey?

A. Cavum septi pellucidi
B. Cisterna magna
C. Massa intermedia
D. Cavum vergae

20. Which view best evaluates the relationship between the foot and the lower leg to screen for clubfoot?

A. Four-chamber view
B. Coronal view showing the long axis of the tibia and fibula together with the plantar surface of the foot in the same image
C. Sagittal view of the spine
D. Axial view through the kidneys

21. How many vessels are present in a normal umbilical cord?

A. Three arteries
B. One artery and two veins
C. Two arteries and one vein
D. One artery and one vein

22. Which view documents normal axis and situs of the fetal heart in a single image?

A. Sagittal view of the spine
B. Transverse four-chamber view showing the apex pointing to the fetal left and the stomach on the same side
C. Transthalamic view of the head
D. Axial view of the kidneys

23. Which finding is expected for the fetal gallbladder on a normal abdominal survey?

A. Cystic midline structure between the kidneys
B. Anechoic pear-shaped structure in the right upper quadrant
C. Echogenic structure in the right upper quadrant
D. Anechoic structure in the left upper quadrant

24. Which structure is normally seen as a thin echogenic line between the fetal lips on a coronal facial view and helps exclude a cleft lip?

A. Hard palate
B. Nasal bone
C. Tongue
D. Intact philtrum and upper lip

25. Which axial plane of the fetal head best demonstrates the cerebellum and cisterna magna?

A. Transcerebellar plane
B. Transthalamic plane
C. Transventricular plane
D. Mid-sagittal plane through the corpus callosum