

1. Which of the following best describe(s) fetal lung fluid?

- a. It lowers surface tension within the alveoli
- b. It maintains the structure of the airway lumen and developing alveoli
- c. It is continuously being produced and flows out of the lungs and is swallowed
- *d. Both b and c

2. Which of the following gestational ages is most likely to cause PPHN at birth?

- a. 30 weeks' gestation
- b. 34 weeks' gestation
- c. 36 weeks' gestation
- *d. 41 weeks' gestation

3. If a newborn is diagnosed with having a simple Patent Ductus Arteriosus (PDA), which of the following best describes the blood flow?

- *a. from the aorta to the pulmonary artery
- b. from the pulmonary artery to the aorta
- c. from the left ventricle to the right ventricle
- d. from the right ventricle to the ascending aorta

4. Which of the following is true concerning Congenital Diaphragmatic Hernia (CDH)?

- a. mostly occurs on the right
- b. requires aggressive bag/mask ventilation upon delivery
- c. usually heals on its own
- *d. ventilation is targeted to minimize both pulmonary hypertension and barotrauma

5. If a baby is not completely dried off after being delivered, they will lose heat by what mechanism?

- *a. Evaporation
- b. Conduction
- c. Convection
- d. Radiant

6. How does oxygenated blood leave the placenta and travel to the fetus?

- *a. Through the umbilical vein
- b. Through the umbilical artery
- c. Through the aortic artery
- d. Through the foramen ovale

7. What is true concerning late decelerations?

- a. are not as concerning as early decelerations
- *b. indicate the possibility of fetal asphyxia
- c. in conjunction with a cord blood pH of 7.30 indicate fetal asphyxia
- d. indicate the need for maternal steroids

8. Which of the following statements is false concerning an infant with an untreated Hypoplastic Left Heart?

- a. frequently involves coarctation of the aorta (or proximal aortic hypoplasia)
- b. involves a small left ventricle
- c. involves aortic/mitral valve stenosis or atresia
- *d. prostaglandin is not recommended

9. Which of the following mechanisms explain(s) why oligohydramnios is associated with lung hypoplasia?

- a. Mechanical restriction of the chest wall
- b. Interference with fetal breathing
- c. Failure to produce fetal lung fluid
- *d. All of the above

10. At birth, what factor causes dilation of the pulmonary vascular bed and a decrease in the PVR?

- *a. Increased PaO_2
- b. Decreased PaCO_2
- c. Lung inflation
- d. Circulating indomethacin

11. In an infant who has had significant cardiac surgery to repair a cyanotic heart defect, hypoxemia is sometimes the target therapy because too much supplemental oxygen will have what deleterious effect?

- a. patent ductus re-opening
- b. peripheral vasoconstriction
- c. cerebral vasoconstriction
- *d. pulmonary vasodilation

12. What is the earliest gestational age that a fetus will have sufficient surface area and capillary network to support life?

- a. 14 weeks
- *b. 24 weeks

- c. 32 weeks
- d. 40 weeks

13. The CT scan of the head reports that your patient's ventricles have enlarged and are filled with blood. This would be consistent with:

- a. a grade one Intraventricular Hemorrhage (IVH)
- b. a grade two Intraventricular Hemorrhage (IVH)
- *c. a grade three Intraventricular Hemorrhage (IVH)
- d. a grade four Intraventricular Hemorrhage (IVH)

14. Which of the following events causes cessation of right-to-left shunt through the foramen ovale?

- a. Decreased levels of PaCO₂ in the blood of the newborn
- *b. Increased systemic vascular resistance
- c. Increased pulmonary vascular resistance
- d. All of the above

15. Assign an APGAR score to the following 2150-gram infant who has flaccid tone, is dusky blue in pallor, has gasping respirations with weak a grimace on suctioning, and has a heart rate of 70 bpm.

- *a. 2
- b. 3
- c. 4
- d. 5

16. The best indicator of an infant's overall cardiopulmonary status immediately after birth is:

- *a. Heart Rate
- b. APGAR score
- c. Respiratory effort
- d. Pallor

17. Upon assessing a full-term infant in respiratory distress, you find abdominal sounds over the left lung field and a scaphoid abdomen. You should be concerned about:

- a. Hypoplastic left heart syndrome
- *b. Diaphragmatic hernia
- c. Oomphalocele
- d. Respiratory distress syndrome

18. Respiratory Distress Syndrome (RDS) mostly occurs in which of the following infants?

- a. term babies who suffer fetal distress
- b. post-term babies born by caesarean section
- c. babies born <37 weeks to diabetic mothers
- *d. babies born <35 weeks

19. Grunting is thought to promote:

- a. increased atelectasis
- *b. increased transpulmonary pressures
- c. decreased PaO₂
- d. neonatal lactation

20. An example of a cyanotic congenital heart defect, (right to left shunt), is

- a. Patent ductus arteriosus
- *b. Transposition of the great arteries
- c. Ventricular septal defect
- d. Aortic stenosis