What is the first organ to develop during embryonic respiratory development

- A. heart
- B. brain
- C. liver
- D. lungs

At what stage of embryonic development does the respiratory diverticulum form

- A. During the first week
- B. During the second week
- C. During the third week
- D. During the fourth week

What is the primary function of the pharyngeal arches during respiratory developme

- A. To form the structures of the respiratory system
- B. To produce hormones
- C. To aid in digestion
- D. To regulate body temperature

What is the role of the mesoderm in respiratory development

- A. Mesoderm plays no role in respiratory development
- B. Mesoderm produces hormones for the respiratory system
- C. Mesoderm gives rise to muscle and connective tissue in the respiratory system
- D. Mesoderm forms the airways in the respiratory system

What signaling pathway is essential for the branching morphogenesis of the respirat

- A. TGF-beta signaling pathway

• B. Notch signaling pathway

• C. FGF signaling pathway

• D. Wnt signaling pathway

What is the function of surfactant in the lungs

• A. Reduce surface tension

• B. Regulate blood pressure

• C. Promote inflammation

• D. Increase oxygen levels

What is the name of the primitive lung bud that forms during embryonic developmen

• A. Tracheal diverticulum

• B. Bronchial bud

• C. Alveolar sac

• D. Pulmonary bud

What is the role of the diaphragm in breathing

• A. The diaphragm helps with digestion.

• B. The diaphragm releases carbon dioxide from the lungs.

• C. The diaphragm contracts to increase the volume of the chest cavity, allowing air to be drawn into the lungs.

• D. The diaphragm filters the air before entering the lungs.

What is the function of the respiratory bronchioles in the lungs

• A. Storing oxygen

• B. Gas exchange

• C. Producing mucus

• D. Regulating blood flow

What is the name of the process by which oxygen is exchanged for carbon dioxide i

• A. Circulation

• B. Photosynthesis

• C. Digestion

• D. Respiration

What is the role of the pleura in the respiratory system

• A. To regulate body temperature

• B. To protect and lubricate the lungs

• C. To help with digestion

• D. To produce mucus for breathing

What is the function of the alveoli in the lungs

• A. Gas exchange

• B. Regulating blood flow

• C. Filtering air

• D. Producing mucus

What is the name of the protein that helps to transport oxygen in the blood

• A. insulin

• B. hemoglobin

• C. collagen

• D. amylase

What is the name of the process by which surfactant is produced in the lungs

- A. Lung secretion
- B. Pulmonary surfactant synthesis
- C. Alveolar fluid secretion
- D. Surfactant production

What is the role of the epiglottis in the respiratory system

- A. To produce mucus for lubrication
- B. To regulate breathing rate
- C. To filter air entering the lungs
- D. To prevent food from entering the trachea

What is the function of the ciliated epithelium in the respiratory tract

- A. To absorb oxygen
- B. To produce mucus
- C. To help with digestion
- D. To sweep mucus and debris out of the airways

What is the name of the condition in which the bronchial tubes become inflamed and

- A. COPD
- B. Asthma
- C. Pneumonia
- D. Bronchitis

What is the role of the bronchial smooth muscle in the lungs

- A. Aids in digestion
- B. Controls the diameter of the bronchial tubes
- C. Produces mucus in the lungs

• D. Regulates blood flow in the lungs

What is the function of the pulmonary arteries in the respiratory system

• A. Regulate breathing rate.

• B. Exchange gases in the alveoli.

• C. Transport oxygenated blood from the lungs to the heart.

• D. Transport deoxygenated blood from the heart to the lungs.

What is the name of the condition in which the alveoli become damaged and lose the

• A. Bronchitis

• B. Pneumonia

• C. Asthma

• D. Emphysema