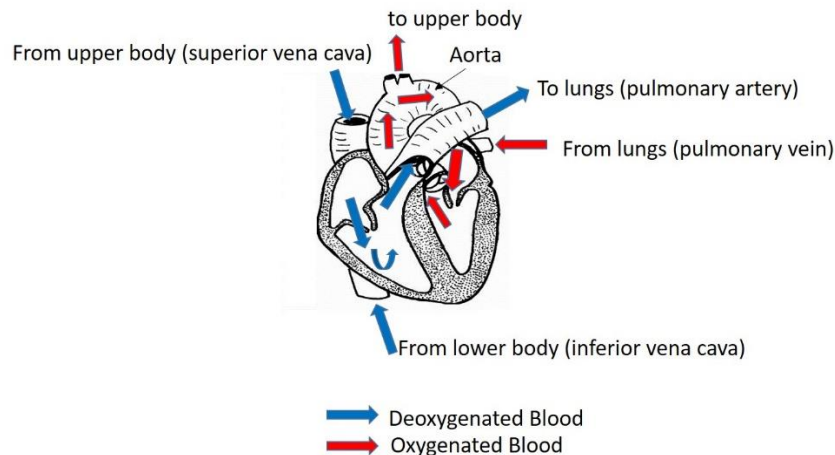


SNC2DI Practice Test

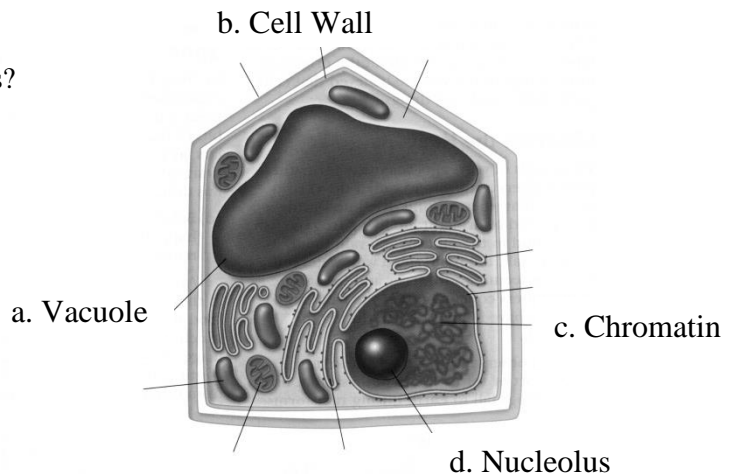
Match the following terms to the best definition. (10)

- | | |
|------------------------------|---|
| ___C___ Cytokinesis | A The diffusion of water across a semi-permeable membrane. |
| ___F___ Mitosis | B. The ability to re-grow organs or tissues |
| ___B___ Regeneration | C. Division of the cytoplasm and its contents |
| ___I___ Cell differentiation | D. Stem cell that can produce only certain types of cells |
| ___A___ Osmosis | E. Muscle contractions that help to force food down the esophagus. |
| ___H___ Mutation | F. Division of the nuclear membrane |
| ___E___ Peristalsis | G. Contents of the stomach after the food has been broken down by stomach acid. |
| ___G___ Chyme | H. An alteration of the genetic code of a DNA molecule. |
| ___D___ Pluripotent | I. Cells specializing for different functions |
| ___J___ Totipotent | J. Stem cell that can become any cell in the body |

1. Show the passageway of deoxygenated and oxygenated blood in the heart. Be sure to label the main arteries and veins, and have a legend with for oxygenated and deoxygenated blood.(8)



2. Label the parts of the cell as indicated. (5)
 a. What type (animal/plant) of cell is this?
Plant Cell



3. Name the 4 types of tissues in the human body and give an example of where they are found in the body. (4)
1. **Epithelial** – skin,
 2. **Connective** – bones
 3. **Muscular** – in biceps and triceps, heart
 4. **Nervous** – brain, nerve fibres

4. State one function of the organ system below in the human body and give an example of one organ found in that system. (10)

Circulatory – to move blood around the body and deliver oxygen to the cells – heart, arteries, veins

Respiratory – to take in oxygen and expel carbon dioxide – lungs, diaphragm

Integumentary – to form a protective layer around the body – skin, hair, nails

Digestive – to take in food and extract the nutrients from the food – stomach, small and large intestine

Nervous – to transmit signals from organs to the brain and back – nerve fibres, brain

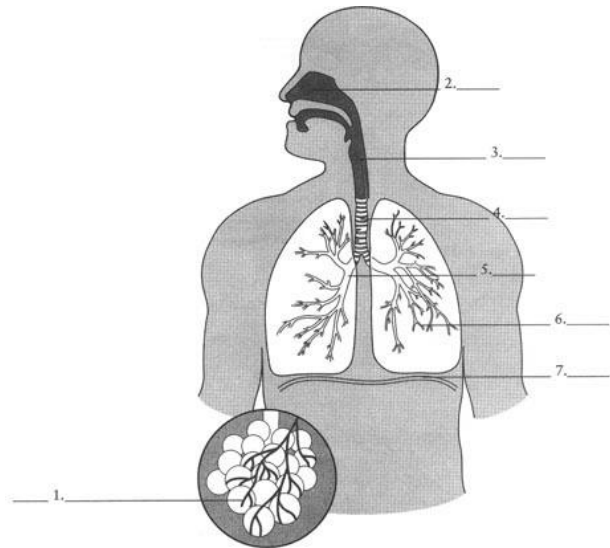
5. Name 3 organs that are important in the digestive system but food does NOT pass through them. (3)
- gall bladder, liver, pancreas**

6. What are 2 reasons that cells divide? (2)

- **Reproduction**
- **Repair**
- **Growth**

7. Explain how oxygen gets from the air we breathe into our bloodstream. Be sure to list **each** of the structures that the oxygen passes through. Use the diagram below to guide you. (8)

When the diaphragm contracts (moves down) oxygenated air enters through the nasal and oral cavities and then travels through the Pharynx, Larynx and Trachea in that order. From there, the air enters the lungs through the Bronchus. Travelling all the way through the bronchioles and into the alveoli the oxygen in the air then gets absorbed into deoxygenated blood in the capillaries that are on the walls of the alveoli. Meanwhile the carbon dioxide in the blood is diffused into the air in the alveoli and then expelled back out the same way the air entered the lungs. This occurs when the diaphragm relaxes (or moves up).



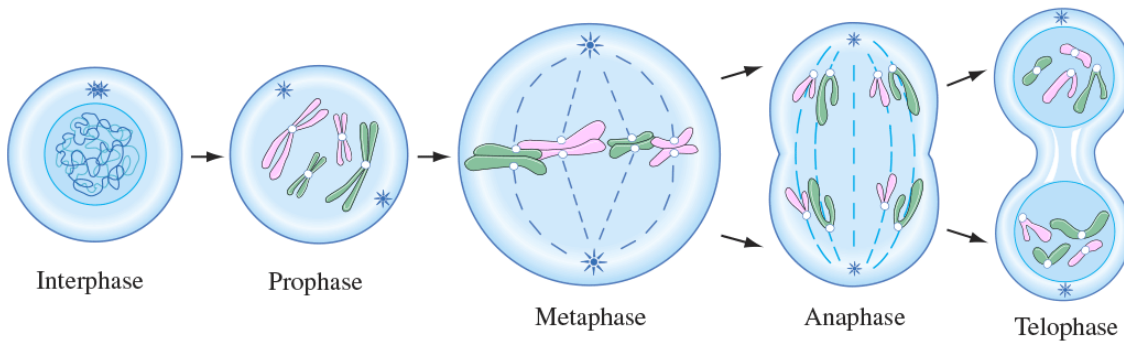
8. Explain how the circulatory and respiratory systems depend on each other. (2)

The circulatory system takes the oxygen from the air that the respiratory system breathes in. The respiratory system uses the oxygenated blood supplied by the circulatory system to keep its' organs alive.

9. What does it mean when food goes down the wrong tube? (2)

This could happen if the epiglottis did not close at the right time and food could enter the larynx.

10. Draw the 4 stages of mitosis and the stage of interphase. Be sure to clearly label each stage. (5)



END ☺