

Name the structures that compose the respiratory tract. Indicate for each structure whether it belongs to the upper respiratory tract or the lower respiratory tract.

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

5 \_\_\_\_\_

6 \_\_\_\_\_

7 \_\_\_\_\_

Which structures are included in the tracheobronchial tree of the respiratory tract? List the structures in order from proximal to distal.

8 \_\_\_\_\_

9 \_\_\_\_\_

10 \_\_\_\_\_

11 \_\_\_\_\_

12 \_\_\_\_\_

13 \_\_\_\_\_

14 \_\_\_\_\_

15 \_\_\_\_\_

Which area in the tracheobronchial tree is the most sensitive area associated with cough reflex? (16) \_\_\_\_\_

Within the nasal cavity, there is a structure that is composed of both bones and cartilage. It separates the nasal cavity into two halves. What is this structure? (17) \_\_\_\_\_

Name the structure that the nasal cavity opens into. (18) \_\_\_\_\_ Under normal situation, only air can enter this structure.

What is the name of the structure that separates the nasal cavity from the oral cavity? (19) \_\_\_\_\_

The air-filled cavities in the skull around and connect to the nasal cavity are called (20) \_\_\_\_\_.

Give 3 examples of these cavities. (21) \_\_\_\_\_, (22) \_\_\_\_\_

and (23) \_\_\_\_\_. (Their names correspond to their location in the skull, you

will learn the structure of the skull later). A function of these cavities is to allow resonance during voice production.

The larynx is made up of cartilages covered by mucosa. The (24) \_\_\_\_\_ is a piece of cartilage in the larynx. It depresses to cover the entrance to the trachea to prevent food or fluid from entering the trachea during swallowing. If food or fluid enters the lower respiratory system, this condition is called (25) \_\_\_\_\_.

The pharynx is composed of 3 parts. The (26) \_\_\_\_\_ is located posterior to the nasal cavity. The (27) \_\_\_\_\_ is located posterior to the oral cavity and the tongue. The (28) \_\_\_\_\_ is located posterior to the larynx.

The trachea is supported by (29) \_\_\_\_\_ so that it does not collapse. On the posterior side is a smooth muscle (the trachealis), which is innervated by the (30) \_\_\_\_\_ nervous system to controls contraction [through stimulation by (31) \_\_\_\_\_ division] and relaxation [through stimulation by (32) \_\_\_\_\_ division] of the smooth muscle, which changes the radius of the trachea to alter air flow.

The central compartment in the thorax that separated the left and right lungs is called the (33) \_\_\_\_\_. The lungs are divided into lobes by fissures. Indicate the number of lobes and fissures found in the left lung and in the right lung.

(34) The left lung has \_\_\_\_\_

(35) The right lung has \_\_\_\_\_

The functionally independent respiratory units of the lungs are called (36) \_\_\_\_\_. Each of them is supplied by a (37) \_\_\_\_\_ bronchus and a tertiary branch of the pulmonary artery which run anteriorly along the corresponding bronchus.

The left and right lungs are enclosed by individual serous pleural sac that consists of 2 continuous membranes – the pleurae. Name the pleurae and indicate which surface each of the pleura adheres to.

(38) \_\_\_\_\_

(39) \_\_\_\_\_

The lungs do not completely fill the pleural cavity during expiration. The potential pleural spaces are called (40) \_\_\_\_\_ recesses [located at where the costal pleural meets the diaphragmatic pleura] and (41) \_\_\_\_\_ recesses [located at where the costal pleura meets the mediastinal pleura].

Each lung receives blood supply from a (42) \_\_\_\_\_, which branches into a dense capillary network that surround the alveoli for gas exchange. The oxygenated blood is then drained back to the (43) \_\_\_\_\_ of the heart through (44) \_\_\_\_\_ (how many?) pulmonary veins. The

bronchial tree receives blood supply from the (45) \_\_\_\_\_, which are branches of the descending aorta.

The (46) \_\_\_\_\_ is located on the medial aspect of each lung and provides the only route via which other structures enter and exit the lung, which includes (47) \_\_\_\_\_, (48) \_\_\_\_\_, (49) \_\_\_\_\_, lymphatic vessels and nerves. It also serves as the point of attachment for the lung root and is the point at which the visceral and parietal pleura connect.

The sternal angle (Angle of Luis) is between (50) \_\_\_\_\_ of the sternum can be palpated at the level of which rib? (51) \_\_\_\_\_.

There are a total of (52) \_\_\_\_\_ ribs. The first to the (53) \_\_\_\_\_ ribs are true ribs that attach directly to the sternum. The (54) \_\_\_\_\_ ribs are false ribs that attach to the sternum indirectly through the costal cartilages. The remaining ribs are floating ribs that do not attach to the sternum. The intercostal muscles are located at the (55) \_\_\_\_\_ between adjacent ribs. There are 3 layers of intercostal muscles. Name these layers from superior to deep: (56) \_\_\_\_\_, (57) \_\_\_\_\_ and (58) \_\_\_\_\_.

The diaphragm has 3 openings for passage for structures into the abdominal cavity. Name the openings and the corresponding structures that passes through it.

(59) \_\_\_\_\_

(60) \_\_\_\_\_

(61) \_\_\_\_\_

The diaphragm is innervated by the (62) \_\_\_\_\_ nerve, which runs anterior to the (63) \_\_\_\_\_.

The principle inspiratory muscles are (42) \_\_\_\_\_.  
Quite expiration is a passive process in which no muscles contraction is involved. However, expiration becomes active when breathing rate and depth increases during forced breathing. The muscles that assist in forced expiration includes (43) \_\_\_\_\_.