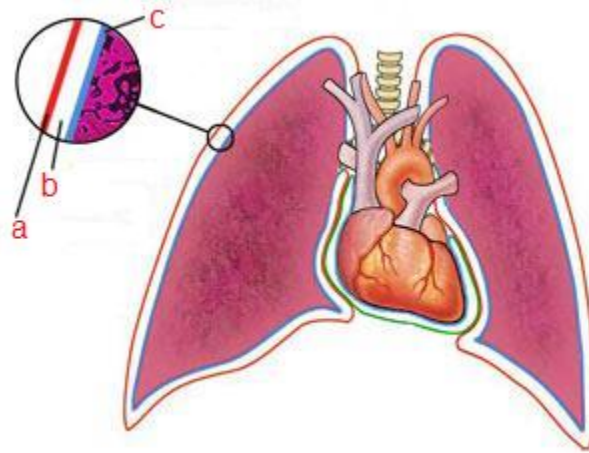


Station 1

1. The upper respiratory system is composed of what organs?
2. The lower respiratory system is composed of what organs?
3. The right and left lung each have 3 lobes? True or False?
4. The lungs are enveloped by a membrane called the?

Station 4

1. Label the diagram below



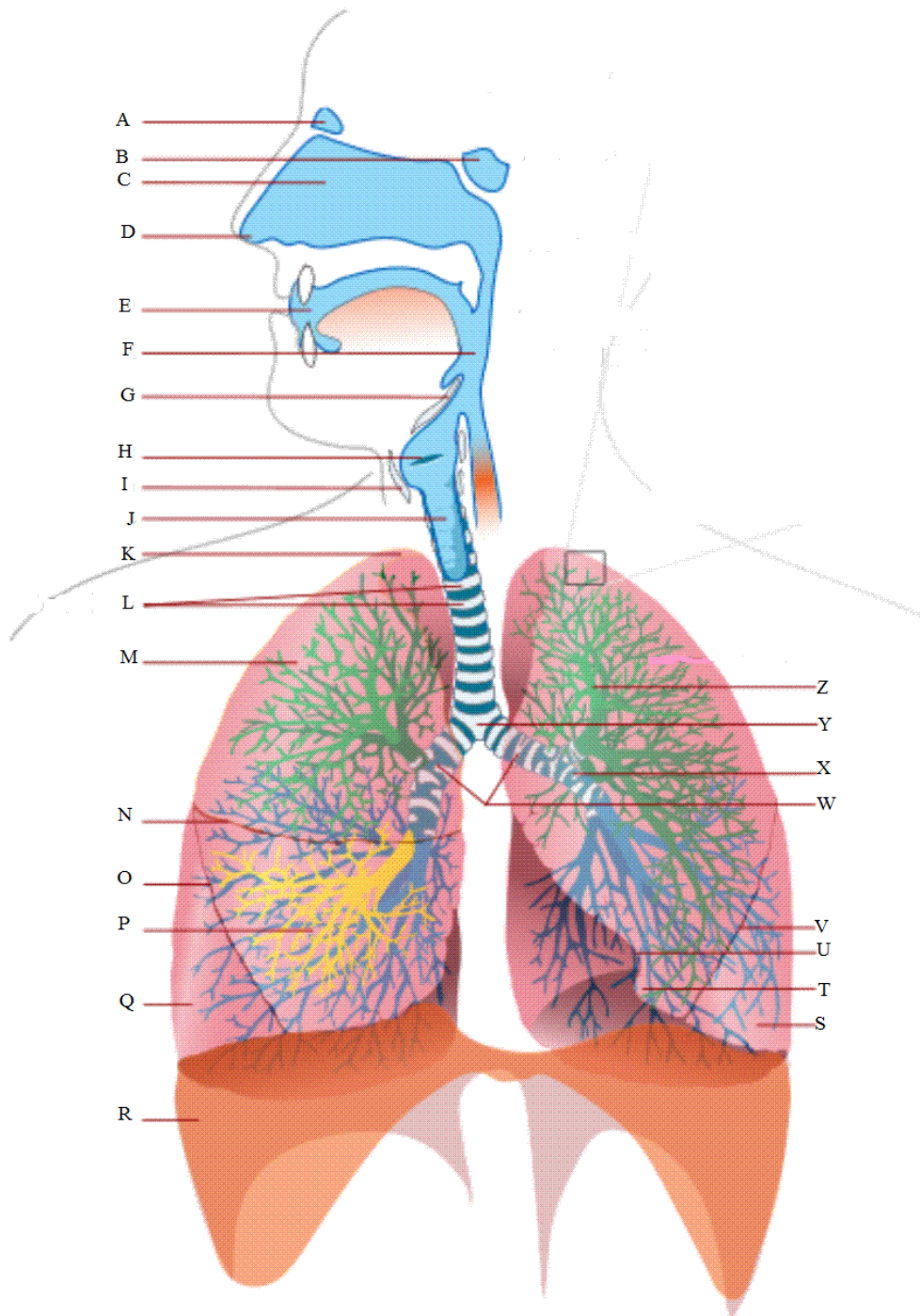
2. What helps the pleura membranes slide over each other but not pull apart?

3. Lung tissue is not elastic. True or False?

4. Tiny hairs called cilia protect the nasal passageways and other parts of the respiratory tract by doing what?

Station 5

Label as many parts as possible



Station 6

1. The ribs form the?
 - a. Pleural Wall
 - b. Thoracic Cavity
 - c. Nasal Passage
 - d. Tracheal Outer Wall

2. Contraction of external intercostal muscles pull ribs & sternum upward and outward, increases anterior-posterior thoracic diameter by what percent?
 - a. 2%
 - b. 10%
 - c. 20%
 - d. 15%

3. During normal breathing inspiration is know as the ___a___ process and expiration is know as the ___b___ process.

4. What is the name of the group of cells that have inherent rhythm (action potential) that causes inspiratory cycles?

Station 7

1. Which of the following is not an early sign of Myositis?
 - a. Difficulty in rising from a chair, climbing steps, lifting the arms and experiencing falling at random
 - b. Become exceedingly fatigued after prolonged standing or walking
 - c. Loss of strength throughout the body
 - d. Difficulty in swallowing and labored breathing
 - e. Inability to stretch muscles
2. Myositis is a broad disease name that encompasses what three specific diseases?
3. Each year how many people out of 1 million will develop a form of Myositis?
4. What are the 2 types of drugs used to treat Myositis?
5. What is the cause of Myositis?

Station 8

1. Sitting in a relaxed position in one minute how many liters of air will you breath in, and of that what percent will your lungs extract in oxygen?
2. Exercising flat out, a top-class athlete can expect to increase his/her breathing rate to around how many breaths a minute?
3. Briefly describe what happens to your body if you do not get enough oxygen into your body.
4. By gradually building up the exercise you take, you can help to improve your breathing and feel better even if you have a chronic lung problem. True or False

Station 11

Answer the following questions as true or false.

1. Vasopressin is produced in the thyroid.
2. The pituitary gland releases a hormone that helps maintain blood platelet concentration.
3. Growth hormone, or GH, is one of the types of hormones produced by the hypothalamus.
4. GH stimulates growth during childhood and also stimulates cell reproduction, which helps adults maintain muscle and bone mass.
5. Calcitonin, produced by the thyroid gland, aids in water and electrolyte balance.
6. Insulin regulates glucose, or sugar intake, by helping it move from the blood into cells.
7. It is one of the types of hormones produced by the liver.
8. Adrenal glands are small glands located at the top of each pancreas.
9. Adrenaline works with noradrenaline to produce the "fight or flight" response by increasing the supply of oxygen to the brain and muscles.
10. The main purpose of the endocrine system is extracellular communication, using chemicals, called hormones, to communicate between cells and regulate body functions.

Station 12

1. What are lipids that are synthesized from cholesterol?
2. Which of the following is not a water-soluble hormone?
 - a. hormones of the thyroid gland
 - b. most amino acid hormones
 - c. protein
 - d. polypeptide
3. Why can fat soluble hormones pass through a cell membrane?
4. True or False. Fat soluble hormones bond to a receptor protein in a cell.

Station 13

1. _____ is a group of metabolic diseases in which a person has high blood sugar, either because the body does not produce enough insulin, or because cells do not respond to the insulin that is produced.
2. _____, also called low blood glucose or low blood sugar, occurs when blood glucose drops below normal levels.
3. _____ is an autoimmune disorder that leads to over activity of the thyroid gland.
4. _____ is the enlargement of the thyroid that is not associated with overproduction of thyroid hormone or malignancy.

Division B Anatomy

Answer Key - Questions are 1 point each unless otherwise noted

School:_____ **V JV1 JV2 JV3**

Names:_____

Station 1:

- 1. nose (1pt for each)**
nasal cavity
ethmoidal air cells
frontal sinuses
maxillary sinus
larynx
trachea
- 2. lungs**
bronchi
alveoli

- 3. True OR False**
- 4. Pleura**

Station 2:

- 1. YES or NO (2pts)**
- 2. YES or NO (2pts)**
- 3. Joints**
- 4. Joints**
- 5. It lubricates Joints (2pts)**

Station 3:

- 1. Myasthenia gravis (tiebreaker) (4pts)**

Station 4:

- 1. a: Parietal Pleura**
b: Pleural Cavity
c: Visceral Pleura
- 2. Pleural Fluid**
- 3. True OR False**
- 4. Filtering out dust and other particles that enter the nose through the breathed air. (2pts)**

Station 5:

- A: Frontal Sinus**
- B: Sphenoid Sinus**
- C: Nasal Cavity**
- D: Nasal Vestibule**
- E: Oral Cavity**
- F: Pharynx**
- G: Epiglottis**
- H: Vocal Fold**
- I: Thyroid Cartilage**
- J: Trachea**
- K: Apex**
- L: Cricoid Cartilage**
- M: Superior Lobe**
- N: Horizontal Fissure**
- O: Oblique Fissure**
- P: Middle Lobe**
- Q: Inferior Lobe**
- R: Diaphragm**
- S: Inferior Lobe**
- T: Lingula of Lung**

U: Cardiac Notch
V: Oblique Fissure
W: Main Bronchi
X: Intermediate Bronchus
Y: Carina of Trachea
Z: Lingular Division Bronchus

Station 6:

1. **B**
2. **C**
3. a. **Active**

b. **Passive**
4. **Dorsal respiratory group**

Station 7:

1. **E**
2. **Polymyositis,**
Dermatomyositis,
Inclusion Body Myositis
(1pt each)
3. **5-7**
4. **CORTICOSTEROIDS,**
IMMUNOSUPPRESSANTS
5. **Medical professionals do not agree**
about the causes of a Myositis disease.

Station 8:

1. **12 liters, 20% (2pts)**
2. **40-60**
3. **When exercising your body needs**
more energy they get this by breaking
down glucose from your food, but to do
this they need oxygen. If there is too
little oxygen they will try to produce
energy in a different way leading to a

build-up of a chemical called lactic acid,
which causes cramps. (3pts)

4. **True OR False**

Station 9:

- 1: SMOOTH or **CARDIAC** or STRIATED
- 2: **SMOOTH** or CARDIAC or STRIATED
- 3: **SMOOTH** or CARDIAC or **STRIATED**
- 4: SMOOTH or **CARDIAC** or STRIATED
- 5: SMOOTH or **CARDIAC** or STRIATED
- 6: SMOOTH or CARDIAC or **STRIATED**
- 7: **SMOOTH** or CARDIAC or STRIATED
- 8: **SMOOTH** or **CARDIAC** or STRIATED
- 9: SMOOTH or CARDIAC or **STRIATED**
- 10: **SMOOTH** or **CARDIAC** or **STRIATED**

Station 10:

1. **True** OR **False**
2. **True** OR **False**
3. **True** OR **False**
4. **True** OR **False**
5. **True** OR **False**
6. **True** OR **False**
7. **True** OR **False**
8. **True** OR **False**
9. **True** OR **False**
10. **True** OR **False**
11. **True** OR **False**
12. **True** OR **False**

Station 11:

1. True OR False
2. True OR False
3. True OR False
4. True OR False
5. True OR False
6. True OR False
7. True OR False
8. True OR False
9. True OR False
10. True OR False

Station 12:

1. Steroid hormones
2. A
3. Cell membranes are composed of a phospholipid bilayer which prevents fat-insoluble molecules from diffusing into the cell. (2 pts)
4. True

Station 13:

1. Diabetes Mellitus.
2. Hypoglycemia
3. Graves Disease
4. Goiter

Station 14:

1. Number OR Size (2pts)
2. Protein (2pts)
3. The heart is a muscle, and it gets more efficient with exercise. (1pt) Top athletes have a more efficient heart because they exercise it more (1pt), so it has to beat less (1pt).

Station 15:

1. Belly Button
2. The ear is made of cartilage so it has less nerves (2pts)
3. Belly Button
4. It has more nerve endings than the ear, which is made of cartilage (2pts)