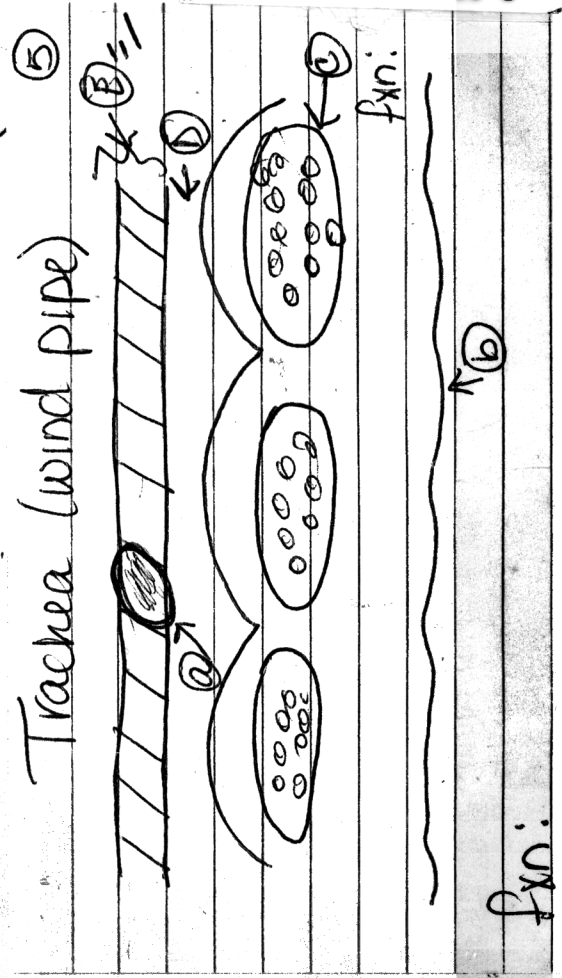


Respiratory System Anatomy



- a. _____ = nose → bronchioles
b. _____ = alveoli

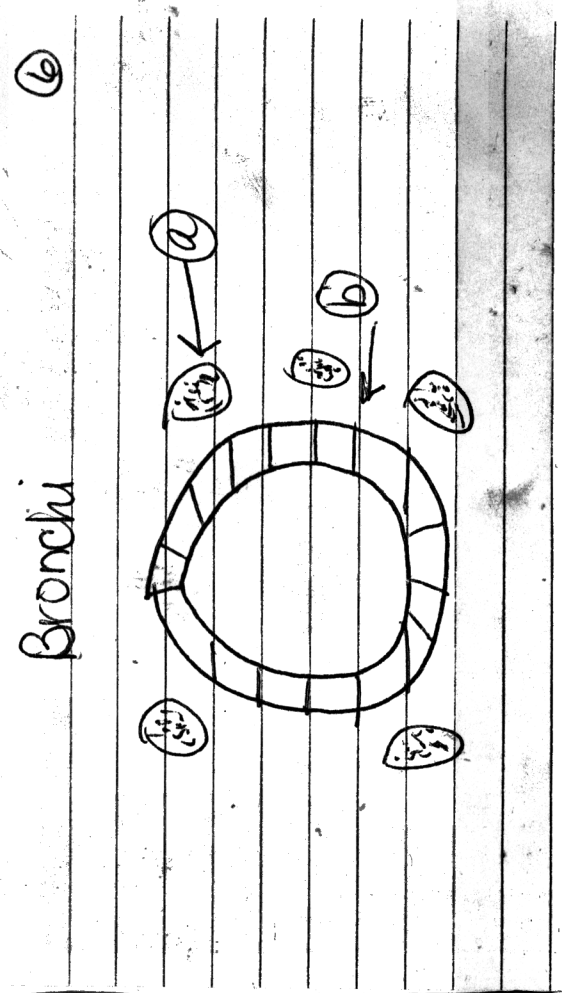


1. Anatomy = Nose
a. _____ = external nares
b. _____ = PSCCET
c. _____ = _____

2. Physiology
a. _____
fxn: _____

Pharynx (throat)

1. _____ = _____ # 4 in lab
2. _____ = _____ # 5 in lab
3. _____ = _____ # 6 in lab



Larynx (voice box)

1. _____ = _____
2. _____ = _____
3. _____ = _____
fxn: _____
4. _____ = _____
fxn: _____

WED Exam 2
* steps to breathing
* antagonistic hormones
* digestive enzymes

1. Nose
2. Pharynx
3. Larynx
4. Trachea
5. Bronchi
6. Bronchioles
7. Alveoli

- a. conducting portion
- b. respiratory portion (exchange)

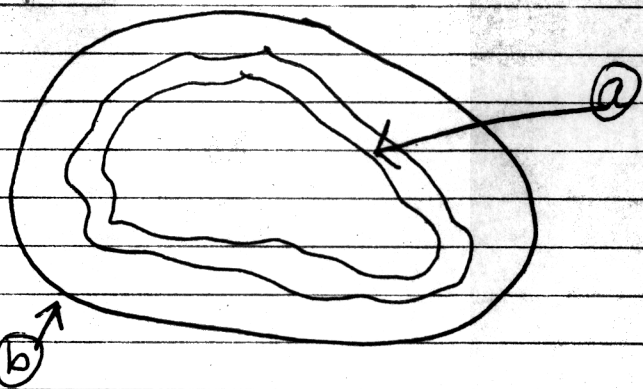
1. hyaline + bones
 - a. nostrils
 - b. nasal cavity
(pseudostratified ciliated columnar epithelial tissue)
 - c. external nares & uvula
2. physiology
 - a. sinus
fxn: warm & moisten air

- a. goblet cell
- b. adventitia layer
- c. hyaline cartilage
fxn: prevent collapse
- d. submucosa layer
- e. mucosa layer = PSCCET
fxn: conduct air

1. nasopharynx = PSCCET
2. oropharynx = stratified squamous
3. laryngopharynx = stratified squamous

1. thyroid cartilage & adam's apple - hyaline
2. cricoid cartilage = hyaline
3. arytenoid cartilage = hyaline
fxn: anchor vocal folds
4. epiglottis = elastic
fxn: separate air from food passage

- a. hyaline
- b. PSCCET



* hormone = _____ = _____

Aveoli (air sacs) ⑧

fxn: simple squamous tissue

1. _____ = gas exchange
2. _____ = produce surfactant

Exhalation "Passive" ⑪

- a. _____ = up
- b. _____ = down
- * _____ = decrease volume, increase pressure

Pulmonary Ventilation ⑨

- A.
- B.
- C.

Exchange of O₂/CO₂ ⑫

A. Gas laws

1. _____ = _____
- a. _____ = 21%
- b. _____ = 78%
2. _____ = _____

Inhalation "Active" 10

- a. _____ = down
- b. _____ = up
- * _____ increase volume, decrease pressure

- a. simple cuboidal epithelial tissue
- b. smooth muscle
- * E/NE = bronchodilatation

fxn: gas exchange

1. Type I
2. Type II

- a. diaphragm
- b. ribs
- * Boyle's law

- A. 1st step
- B. involves inhalation + exhalation
- C. moves from high to low pressure

- 1. Dalton's = partial pressure
 - a. P_{O_2}
 - b. P_N
- 2. Henry's law = partial pressure \times solubility

- a. diaphragm
- b. ribs (intercostal)
- * Boyle's law

- A. Respiratory Center = _____
- B. Receptors:
 1. _____
 2. _____
 3. _____

- C. Effectors:
 1. _____
 2. _____

Carbon Dioxide (15)

1. _____ = 78%
2. _____ = 13%
3. _____ = 9%

Transport O₂ & CO₂ (14)

- A. Oxygen transport
 1. _____ = 98.5%
 2. _____ = 1.5%
 3. affinity:
 - a. \downarrow = _____ affinity
 - b. \uparrow = _____ affinity
 - c. \uparrow = _____ affinity
 - d. \uparrow = _____ affinity

External Respiration: (13)

1. _____ \rightarrow _____

Internal Respiration: (ch 25)

1. _____ \rightarrow _____

A. Medulla Oblongata

B. Receptors

1. baroreceptors
2. Chemoreceptors
3. proprioceptors

C. Effectors

1. diaphragm
2. ribs

1. bicarbonate (HCO_3^-)

2. carbamino hemoglobin

3. dissolved plasma

1. Oxyhemoglobin

2. dissolved plasma

3. affinity:

a. pH = \uparrow

b. CO_2 = \uparrow

c. Temp = \uparrow

d. BPG = \uparrow

1. aveoli \rightarrow lung capillaries

1. tissue capillaries \rightarrow cell