



# **BIOLOGY**

# BOOKS - TRUEMAN BOOK COMPANY BIOLOGY (HINGLISH)

# **BREATHING AND EXCHANGE OF GASES**

**Multiple Choice Questions** 

**1.** If the thoracic wall but not lungs is punctrues

- A. the lungs get inflated
- B. the man dies as the lungs get collapsed
- C. the breathing rat e decreases
- D. the breathing rate icreases

## **Answer: B**



**Watch Video Solution** 

**2.** Inflammation of the lung covering causing severe chest pain is

- A. emphysema
- B. pleurisy
- C. asphyxia
- D. hypoxia

# **Answer: B**



**Watch Video Solution** 

**3.** In human beings, the number of lobes in right and left lungs are

- A. 2 and 3
- B. 2 and 2
- C. 3 and 2
- D. 4 and 2

# **Answer: C**



**Watch Video Solution** 

4. What would happen when blood is acidic

- A. binding oxygen with haemoglobin increases
- B. red blood corpuscles are fomed in higher number
- C. binding of oxygen with haemoglobin
- D. there is no change in oxygne binding nor number of RBC

#### **Answer: C**



5.	Residual	air	mostly	occurs /	in	Â
				,		

- A. alveloi
- B. brounchus
- C. norstrils
- D. trachea

**Answer: A** 



**6.** One common feature of the trachea of cockroach and the trachea of mammals is that

A. cilated inner lining

B. noncolasible wall

C. paired nature

D. origin from head region

## **Answer: B**



**7.** What is usually present at the time of asphyxiation?

A. oxyhaemoglobin

B. methaemoglobin

C. carbaminohaemoglobin

D. carboxyhaemoglobin

**Answer: C** 



8. Trachea is lined with incomplete rings of

A. fibrous cartilage

B. calcified crtilage

C. elastic cartilage

D. hyaline cartilage

**Answer: D** 

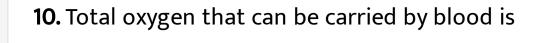


**9.** Amount of oxygen present in one gram of haemoglobin is

- A. 20 ml
- B. 1.340 ml
- C. 13.4 ml
- D. none of the above

**Answer: B** 





- A. 1000-1200 ml
- B. 2000-3000 ml
- C. 200 ml
- D. 100 ml

# **Answer: A**



**Watch Video Solution** 

11. Oxygen carried by blood is liberated in

- A. arteries
- B. capillars of body
- C. capillaries of lungs
- D. heart

## **Answer: B**



**Watch Video Solution** 

**12.** The respiratory center in the brain is stimulated by

- A. carbon dioxide content in venous blood
- B. carbon dioxide content in arterial blood
- C. oxygen content in venous blood
- D. oxygen content in artierial blood

## **Answer: B**



**Watch Video Solution** 

**13.** Gases diffuse over the respiratory surface because of  $PO_2$ 

- A. is more in alveoli thatn in blood
- B. is more in blood than in tissues
- C. is less in alveoli than in blood
- D. is less in blood than in tissues

## **Answer: C**



**Watch Video Solution** 

**14.** Dead space is

A. respiratory tract

- B. nasal chambers only
- C. alveolar space
- D. pleural cavity

## **Answer: A**



**Watch Video Solution** 

15. In lungs there is definite exchange of ions between RBC and plasma. Removal of  $CO_2$  from blood involves

A. influx of CI into RBC

B. Efflusx of CI form plasma

C. Influx of  $HCO_3$  ions I RCB

D. Efflux of  $HCO_3$  ions from RBC

# **Answer: C**



**Watch Video Solution** 

16. Which of the following statements are true/false

A.The blood transports  $CO_2$  comparatively

easily because of its higher solubility

B.Approximately 8.9% of  $CO_2$  is transported being dissovled in the plasma of blood

C. The carbon dioxide produced by the tissues, diffuses passively into the blood stream and passes into red blood corpsucles and react

D.The chlorde ions diffuse from palsma into the erythrocytes to maintain ionic balance

with water to form  $H_2CO_3$ 

false

A. (i), (iii) and (v) are ture (ii) and (iv) are

B. (i) , (iii) adnd (v)are false (ii) and (iv) are true

C. (i), (ii) and (iv) ar ture (iii) and (v) are false

D. (i) ,(ii) and (iv) are false (iii) and (v) are ture

**Answer: A** 



17. Which is true?

A.  $PcO_2$  of deocygenated blood is 95 mm hg

- B.  $Pco_2$  of alveolar air is 40 mm Hg
- C.  $Pco_2$  of oxygenated blood is 95 mm Hg
- D.  $Pco_2$  of deoxygneated blood is 40 mm

Hg

## Answer: B



**18.** With decrease in temperature, oxyhaemoglobin curve will become

- A. straight
- B. more steep
- C. parabola
- D. none of these

**Answer: B** 



19. Which is true?

A.  $H^{\,+}$  ions released from carbonic acid combine with haemoglobin to form haemoglobinic acid

B. oxyhamoglobin of ertyhrocytes is alkaline

C. more than 70% of carbon diodxide is trnsferred form tissure to lungs as carbam in to compunds

D. in healthy person haemglobin cont ent

is more thant  $25\frac{g}{100}$  ml

# **Answer: A**



Watch Video Solution

**20.** Which is the correct sequence of air passage during inhalation?

A. nasal cavity  $\;
ightarrow\;$  pharynx  $\;
ightarrow\;$  trachea

ightarrow larynx ightarrow bronchiightarrow bronchioles

ightarrow alveoli

B. nasal cavity  $\, \rightarrow \,$  pharynx  $\, \rightarrow \,$  larynx  $\, \rightarrow \,$ 

trachea ightarrow bronchiightarrow bronchioles

ightarrow alveoli

C. nasal cavity  $\, 
ightarrow \,$  larynx  $\, 
ightarrow \,$  pharynx  $\, 
ightarrow \,$ 

trachea ightarrow bronchiightarrow bronchioles

ightarrow alveoli

D. nasal cavity  $\, \rightarrow \,$  larynx  $\, \rightarrow \,$  bronchi  $\, \rightarrow \,$ 

pharynx ightarrow trachea ightarrow bronchioles

ightarrow alveoli

#### **Answer: B**



**Watch Video Solution** 

# 21. Food and air pathways are divided at

A. larynx

B. pharynx

C. stomach

D. oesophagus

**Answer: B** 

22. Glottis is a opening in the floor of

A. mouth

B. trachea

C. pharynx

D. diaphragm

**Answer: C** 



**23.** Thyroid cartilage and arytenoid cartialge are found in

A. throid gland

B. pharynx

C. Larynx

D. Ear pinna

#### **Answer: C**



# 24. Adam's Apple represents

- A. cirocid carilage
- B. thyroid cartilage
- C. pharynx
- D. none of these

# **Answer: B**



**25.** The structure which does not contribute to the breathing movements in mammals

- A. rib
- B. larynx
- C. diaphragm
- D. intercostal muscles

**Answer: B** 



<b>26.</b> In	human.	oblique	fissure i	is present	in
20. 11	marman,	oblique	Hoodic	is present	

- A. right lung
- B. left lung
- C. both lungs
- D. diaphragm

**Answer: C** 



**27.** Even when there is no air in it, human trachea does not collapse due to the presence of

A. bony rings

B. turgid pressure

C. chitinus rings

D. cartilaginous rings

## **Answer: D**



28. Lining of trachea is made up of

A. stratified cililated epithelium

B. pseudostratified ciliated epithelium

C. simple squamous epithelium

D. stratified cubodial epithelium

#### **Answer: B**



**29.** The narrowest and most numerious tubes of lungs are termed as

- A. hillum
- B. alveoli
- C. tracheae
- D. bronchiloes

**Answer: D** 



# 30. Terminals bronchioles brach to from

- A. alveoli
- B. bronchiles
- C. alveolar duct
- D. respiratory bronchiole

# **Answer: D**



**31.** Which one of the following has the smallest diameter?

- A. trachea
- B. secondary bronchiole
- C. respiratory bronchiole
- D. left primary bronchus

## **Answer: C**



**32.** Lungsalveoli of mammals have a thin wall composed of

A. simple cuboidal epithelium

B. simple squamous epithelium

C. stratified cuboidal epithelium

D. stratified squammous epithelium

**Answer: B** 



# 33. The alveolar epithemlium in the lung is

- A. cilitate columnar
- B. cilitated squamous
- C. nonciliated squamous
- D. noncillated columnar

## **Answer: C**



- **34.** Presence of large number of alveloli around alveolar ducts opening in to bronchiles in mammalian lungs is
  - A. an efficient system of ventilation with no residual air
  - B. an efficient system of ventilation with
  - C. inefficient system of ventilation with

D. inefficient system of ventilation with high percentage of residual air

## **Answer: B**



**Watch Video Solution** 

**35.** Which structure are responsible for breadthing process?

A. larynx and bronchi

B. tracheae and alveoli

C. ribs and intercostal muscles intercostal muscles and diaphragm

D. Diaphragm

**Answer: D** 



**Watch Video Solution** 

**36.** Which of the following statements is correct?

A. inspiration is an active process

- B. inspiration is a passive process
- C. expiration is an active process
- D. both expiration and inspiration are passive processes

## **Answer: A**



**Watch Video Solution** 

**37.** During expiration, the diaphragm becomes

A. normal

- B. oblique
- C. flatttened
- D. dome shapped

#### **Answer: D**



- **38.** During inspiration the diaphragm
  - A. relaxes to become dome shaped
  - B. contracts and flattens

C. showns no change

D. expands

**Answer: B** 



**Watch Video Solution** 

**39.** Which one o the following is called inspiratory muscle in mammals?

A. pleural muscle

B. external intercostal muscle

- C. internal intercostal muscle
- D. abdominal muscles



- **40.** During inspiration in mammals the sternum moves
  - A. forward and upward
  - B. backward and upward

- C. forward and downward
- D. backward and downward

## **Answer: A**



**Watch Video Solution** 

- **41.** Which is correct?
  - A. a human lung has 1000 alveoli
  - B. respiatory centres are not affected by

 $CO_2$ 

C. during inspiration the lungs act as suction pump

D. in human vital capactiy is just double the expriatory volume

## **Answer: C**



**Watch Video Solution** 

**42.** The contractio of internal intercostal muscles in man causes

- A. normal expiration
- B. inspiration
- C. forced expiration
- D. normal respriation

## **Answer: C**



**Watch Video Solution** 

**43.** During forced expiration , actively contracting muscles

- A. diaphragm
- B. external intercostals
- C. abdominal muscles
- D. all of these

## **Answer: C**



**Watch Video Solution** 

**44.** With reference to human repiration which is correct?

A. pulmonary ventialtion is equal to alveolar ventilation

B. alveolar ventialtion is more than pulmonary ventialtin

C. pulmonayr ventialtion is less than alveolar ventialtion

D. alveolar ventialtions is less than pulmonary ventialation

## **Answer: D**



# 45. Rate of breathing in an adult human is

- A. 10-12/ min
- B. 12-18 / min
- C. 20-25 / min
- D. 30-35 / min

## **Answer: B**



**46.** The breathing rate in a child is

A. more than in an adult man

B. less than in an adult man

C. same as in an adult man

D. none of the above

**Answer: A** 



**47.** Which of the following statements best summarises the relationship between respiratory rate and bodyu size in related animals?

A. larger the animal higher the respiration rte

B. smaller the animal lower the repiration rate

C. smaller then animals higher the respirtiontory rate

D. size and respiratory rate are not related in any fashion

**Answer: C** 



**Watch Video Solution** 

**48.** which of the following conditions is responsible for increase in ventilation rate of lungs?

A. increase in  $O_2$  onctent of inhaled air

- B. decrease in  $O_2$  content of exhaled air
- C. increase of  $CO_2$  content in inhaled air
- D. increase of  $CO_2$  cotent in exhaled air

#### **Answer: C**



**Watch Video Solution** 

**49.** The exchange of gases between blood capillaries and alveoli in the lung is through

A. active transprot

- B. simple diffusion
- C. osmosis
- D. all of these



**Watch Video Solution** 

**50.** Volume of air breathed in and out during normal breathing is called

A. tidal volume

- B. vital capacity
- C. residual volume
- D. inspiratiory reserve volume

#### **Answer: A**



- **51.** Tidal volume in human being is
  - A. 500 mL
  - B. 800 mL

C. 1000 mL

D. 1200 mL

**Answer: A** 



**Watch Video Solution** 

**52.** About 1200 mL of air is always known to remain inside the human lungs it is described as

A. functional residual capactiy

- B. residual volume
- C. expiratory reserve volume
- D. inspiratory reserve volume



**Watch Video Solution** 

**53.** The amount of air remaining in the air passages and alveloi at the end of quiet respiration is

- A. tidal volume
- B. residual volume
- C. inspirting reserve volume
- D. functin residual capacity

## **Answer: D**



**Watch Video Solution** 

**54.** After deep inspiration, capacity of maximum expiration of lung is called : —

- A. vital capacity
- B. total lung capacity
- C. inspiratory capacity
- D. functional residual capacity



**Watch Video Solution** 

**55.** Vital capacity of lungs is

A. IRV+ERV

B. IRV+ERV+TV

C. IRV+ERV+TV-RV

D. IRV+ERV+TV+RV

#### **Answer: B**



**Watch Video Solution** 

**56.** vital capacity of lungs of an average human is

A. 1200 MI

- B. 2400 MI
- C. 4000 MI
- D. 6000 MI

#### **Answer: C**



**Watch Video Solution** 

**57.** After the expiration of a normal tidal volume a person breathes in as much as air possible the volume of air inspired is the

- A. vital capacity
- B. inspiratory capacity
- C. inspirting reserve volume
- D. total lung capacity



**Watch Video Solution** 

**58.** The maximum amount of air that our lung can normally hold is

- A. vital capacity
- B. tidal capacity
- C. total lung capacity
- D. pulmonary capacity

## **Answer: C**



**Watch Video Solution** 

**59.** The total lung capacity is rpresented by

A. tidal volume + vital capacity

B. tidal volume + functional residual capacity

C. vital capacity + residual volume

D. inspiratory and expiratiory reservbe volumes

## Answer: C



- **60.** Arrange the following in the order of increasing volume
- 1) Tidal volume
- 2) Redidual volume
- 3) Expiratory reserve volume
- 4) Vital capacity
  - A. A=3, B=4=2 D=1 E=5
  - B. A=3 B=1 C=4 D=5 E=2
  - C. A=5 B=4 C=2 D=1 E=2
  - D. A=3 B=1 C=2 D=5 E=4



**Watch Video Solution** 

# **61.** Given these lung volumes

A. 3500 mL

B. 2000 mL

C. 6000 mL

D. 3000 mL

**Answer: B** 

## 62. The alveolar ventilation is the

A. amount of air available for gas exchange in the lungs

B. vital capacity divided by the respiratory rate

C. tidal volume times the respiratory rate

D. minute ventialation plus the dead space

## **Answer: A**



# **Watch Video Solution**

**63.** the partial pressure of oxygen in the alveolar air is

- A. 104 mmHg
- B. 120 mmHg
- C. 40 mmHg
- D. 90 mmHg

#### **Answer: A**



- **64.** Which of these statements about the partial pressure of  $CO_2$  is true ?
  - A. more in inspired air than in expired air
  - B. more in alveolar air than in expired air
  - C. more in expireed air than in alveolar air
  - D. more in inspired air than in alveolar air



# **Watch Video Solution**

**65.** How the transport of  $O_2$  and  $CO_2$  by blood happens?

- A. with the help of rbcs and wbcs
- B. with the elp of wbcs and blood serum
- C. with the help of platelets and plasma
- D. with the help of rbcs the blood plasma

#### **Answer: D**



**Watch Video Solution** 

**66.** Oxygen is transproted in blood mainly by

A. leucocytes

B. erythrocytes

C. serum

D. blood plasma

**Answer: B** 

**67.** Which form of iro is foud in haemoglobin?

A. 
$$fe^{2+}$$

B. 
$$fe^{3+}$$

C. in the form of molecule

D. in the form of feO

Answer: A



## 68. The chemical formula of oxyhaemoglobin is

A. 
$$Hb(O_2)_4$$

$$\mathsf{B}.\,Hb(O_3)_4$$

$$\mathsf{C}.\, Hb_2O_2$$

D. 
$$Hb(O_2)_6$$

#### **Answer: A**



**69.** how many molecules of oxygen are bound to one molecule of haemoglobin

- A. one
- B. two
- C. three
- D. four

**Answer: D** 



**70.** The most important physioloical feature of haemoglobin is

A. its red colour

B. presence of iron

C. presence of basic protein globi

D. its ability to combine reversibly with

**Answer: D** 

oxygen



# **71.** Percentage of oxygen supplied by haemoglobin is

- A. 0.03
- B. 0.7
- C. 0.97
- D. 1

## **Answer: C**



**72.** The precentage of haemoglobin satureated with oxygen will increase if the

A. arterial pH is decreased

B. temperature is incrased

C. arterial  $P_2$  is incrased

D.  $CO_2$  concentration is increased

## **Answer: C**



**73.** Which of he following increases the oxygen affinity of Hb?

- A. decrease in pH
- B. decrease in acidity
- C. decrease in temperatuere
- D. decrease in  $CO_2$  concentration

**Answer: B** 



**74.** In which conditon oxygen dissociation curve of haemoglobin shift to right of normal curve?

- A. decrease in pH
- B. decrease in acidity
- C. decrease in temperature
- D. decrese in  $co_2$  concentration

## **Answer: A**



**75.** Dissociation of oxyhaemoglobin can be promoted by

- A. low
- B. high  $P_{co_2}$
- C. high blood pH
- D. low body temperature

#### **Answer: B**



**76.** What would happen if human blood becomes acidic (low pH)?

A. WBC count increases

B. RBC count decreases

C. oxygen carrying capacity of haemoglobin increases

D. oxygen carrying capacity of haemoglobin decreases

**Answer: D** 

**77.** When parital pressure of  $CO_2(pCO_2)$  rises the oxygen dissociation curve of haemoglobin will

A. shift towards left

B. become irregualr

C. remain unchanged

D. shift towards right

Answer: D

**78.** An increases in the  $P_{50}$  of an oxyhaemoglobin curve would result from a decrase in

A. pH

B. carbondioxide

C. metabolism

D. temperature

Answer: A

79. Bohr effect is the efect of

A.  $CO_2$  on RBCs

B.  $O_2$  on the hemoglobin

 $\mathsf{C.}\,\mathit{CO}_2$  on haemoglobin

D.  $CO_2$  on oxygaemglobin

**Answer: D** 



**80.** Which of the following statement correctly defines "Bohr effects"

- A. fall in  $P_{50}$  with a decrease in pH
- B. rise in  $P_{50}$  with a decrase in  $CO_2$  concentration
- C. Rise in  $P_{50}$  with an increase in  $CO_2$  concentration
- D. Rise in  $\,P_{50}\,$  with an increse in pH and decrease in  $\,P_{co_2}\,$

#### **Answer: C**



**Watch Video Solution** 

**81.** Which o fthe following factors raise the  $P_{50}$  value and shifts the  $HbO_2$  dissociaton curve to right ?

- A. 1 and 2 are correct
- B. 2 and 4 are correct
- C. 1 and 3 are correct
- D. 1,2 and 3 are correct

#### **Answer: C**



# **View Text Solution**

# **82.** $CO_2$ is carried in blood as

A. sodium bicarbonate

B. sodium carbonate

C. potassium carboate

D. magnesium carbonate

#### **Answer: A**

83. Bicarbonate ions are genergated in

A. RBCs

B. basphil

C. neutrophil

D. lymphocytes

**Answer: A** 



**84.** Carbon dioxide is transproted from tissues to respirtatory surface by only

- A. plasma only
- B. RBCs and WBCs
- C. plasma and RBCs
- D. Red blood corpuscles only

#### **Answer: C**



# **85.** Enzyume involved in $CO_2$ tranport blood is

- A. carboxylase
- B. carboxykinase
- C. carboic anhydrase
- D. none of these

#### **Answer: C**



86. Statements

A. statement (a) s correct and is responsible for sttement (b)

B. statement (a) is not correct but statement (b) is correct

C. both statements (a) and (b) are wrong

D. statement (a) is correct but not ivolved in statement (b)

**Answer: A** 

**87.** In lungs there is definite exchange of ions between RBC and plasma. Removal of  $CO_2$  from blood involves

A. influx of  $CI^{\,-}$  ions into RBC

B. efflux of  $CI^{\,-}$  ions from RBC

C. influx of  $Na^+$  ions into RBC

D. efflux of ions from RBC

Answer: B

88. Hamburger phenomenon explains

A. chloride shift

B. formation of  $HCO_3$ 

C. breathing mechanism

D. oxygen satureaton of hb

**Answer: A** 



# 89. Chloride shift occurs in respond to

- A.  $H^{\,+}$
- B.  $K^+$
- C.  $Na^+$
- D.  $HCO_3$

### **Answer: D**



**90.** In the process of transport of  $CO_2$ , which phenomenon occurs between RBCs and plasma?

- A. osmosis
- B. adsorption
- C. absorption
- D. chloride shift

**Answer: D** 



**91.** Which of the following statement are true/false?

A. a ,c and e are true b and d are false

B. a, b and c are ture d and e are false

C. a,b and d are ture c and e are false

D.

## **Answer: A**



**92.** As the  $P_{CO_2}$  of the venous blood increases the

A. blood pH decreases

B. concentration of  $HCO_3$  decrease

C. amount of chloride in the rbcs decrease

D. affinity of the haemoglobin for  $O_2$  increases

**Answer: A** 



**93.** Which of these statements about the partial pressure of  $CO_2$  is true ?

A. it is higher in the alveoli than in pulmonary arteries

B. it is higer in the systemic arteries than in the tissues

C. it is higher in the systemic veins than in the systemic arteries

D. it is higher in the pulmonary veins than in pulmonary artieries

#### **Answer: C**



**Watch Video Solution** 

**94.** Haemoglobin is having maximum affinity with

A.  $NH_3$ 

B.  $O_{23}$ 

C.CO

D.  $CO_2$ 

#### **Answer: C**



Watch Video Solution

**95.** When a man inhales air containing normal concentration of  $O_2$  as well as CO he suffers from suffocation because

A. Haemoglobin combines with co instead of with  $O_2$  and product cannot dissociate

B. co reacts with  ${\cal O}_2$  reducing percentage of  ${\cal O}_2$  in the blood

C. CO affecrts the diapharagma and intercostal muscles

D. CO affects the nerve of the lungs

Answer: A



**96.** Carbon monoxide has greater affinity for haemoglobin as compared to oxygen :

- A. 2 times
- B. 20 times
- **C. 200 times**
- **D. 1000 times**

**Answer: C** 



**97.** Pneumotaxic centre which can moderate the functions of the respiratory rhythm centre is present at

- A. thalamus
- B. spinal cord
- C. pons varolii
- D. left cerebral hemisphere

## **Answer: C**



**98.** The inspiratory and expiratory centres in man are located in

- A. pons
- B. cerebellum
- C. medulla oblongata
- D. one in pons and the other in cerebellum

#### **Answer: C**



**99.** The Drosal Respiratory group (DRG) is located

- A. dorsal portion of pons
- B. ventral portion of pons
- C. dorsal portion of medulla oblongata
- D. ventral portion of medulla oblongata

**Answer: C** 



**100.** Which oof these parts of the barinsterm is corectly matched with its main function ?

A. ventral respiratory groups stimulate the disaphragm contractin

B. dorsal respiratory groups limit inflation

of the lungs

C. pontine respriatory group switch between inspiration and expiration

D. all of the above

# Answer: C

**101.** The respiratory centre in meddulla may release motor impluses for faster breathing dur to

- A. venous blood leaving it
- B. arterial blood leaving it
- C. venous blood entering into it
- D. arterial blood entering into it

Answer: D

102. Repiratory centre of brain is sensitive to

A. more  $CO_2$  concentration in blood

B. more  $O_2$  concentration in blood

C. accumulation of blood in brain

D. all of the above

**Answer: A** 



# 103. Rate of breathing is maximally affected by

- A. oxygen in trachea
- B. concentration of  $O_2$
- C. concentration of  $CO_2$
- D. diaphragm expansion

## **Answer: C**



**104.** The impulse for voluntary muscles for forced breathing starts in

- A. medualla
- B. cerebrum
- C. spinai cord
- D. vagus nerve

**Answer: B** 



105. The number of RBCs in main incrases if he lives at a higher altitude because

A. there is less oxygen in mountains

B. there is more oxygen at the mountains

C. there are no germs in the sair mountain

D. more heat is required to be produced in

the body for keeping warm

## **Answer: A**



**106.** If a person living at sea level migrates to about 8000 feet high hill his blood after abuot fifteen days will mainly

- A. have fewer wbcs
- B. have more plasma
- C. have increase in volume o fserum
- D. have greater number of rvcs and more

haemoglobin

#### **Answer: D**



**Watch Video Solution** 

**107.** When some food particle enters the winpipe instead of oesphagus it is expelled by the process of

- A. sneezing
- B. coughing
- C. yawning
- D. hiccupping

## **Answer: B**



**Watch Video Solution** 

# **108.** Lack of breathing is

A. apnea

B. eupnea

C. dyspnea

D. asphyxia

**Answer: A** 

# 109. Ordinary quiet breathing is

A. apena

B. eupnea

C. dyspnea

D. asphyxia

**Answer: B** 



110. Asthma is a respiratory disease caused by:

A. infection of lungs

B. infection of trachea

C. spasm in bronchial muscles

D. bleeding into pleural cavity

#### **Answer: C**



111. In which disease, due to flattening of tracheal vessels, alveoli are deprived of oxygen

Name the pulmonary disease in which alveolar surface area involved in gas exchange is drastically reduced due to damage in the alveolar walls

A. asthma

B. bronchities

C. pneumonia

D. empthysema

**Answer: A** 



**Watch Video Solution** 

**112.** Which of the following is not true about asthma?

A. the absic defect is chronic air way in flammation

B. the airway smooth muscle is

hyperresponsive

C. it can be treated with bronchiodilator therapy

D. it is always caused by an infection

Answer: D



113. In heavy smoker the alveoli of the lungs are enlarged and damaged which reduces the surface area of the exchange of respiratory gases this condition is called

- A. asthma
- B. silicosis
- C. insominia
- D. emphysema

#### **Answer: D**



atti video Solution

**114.** Hypoxia is the condition in which less oxygen becomes available to the tissure this may be due to

A. lesser oxygen in the atomosphere

B. blockage in air passage

C. less rbcs in blood

D. all of the above

**Answer: D** 

**115.** Whether a child died after birth or died before birth can be coniirmed by measuring

A. the dead space air

B. tidal volume of air

C. residual volume of air

D. the weight of the child

**Answer: C** 



116. About 97 % of oxygen is transported by

RBC. The remaining 3 % is

A. present in peroxiosmes

B. remains in lungs

C. trapped inside the mitochondria

D. dissolved in plasma and transporte

**Answer: D** 



## 117. Lack of pulmonary surfactant produces

- A. asthma
- B. emphysema
- C. cystic fibrosis
- D. respiratory distress syndrome

## **Answer: D**



118. In the resting person saturation of haemoglobin as blood leaves the tissure capillaries is approximately

- A. 0.75
- B. 0.4
- C. 0.03
- D. 0.46

## **Answer: A**



**119.** Read the following statement and select the correct one

A. oxyhaemoglobin of erythrocytes is alkaline

B. in a healthy person the haemoglobin content is more than 25 g per 100 ml

C. in lungs the oxygen form the alveolus reaches the blood though active transport

D. the  $\,h^{\,+}\,$  released from carbonic acid combines with haemoglobin to form haemoglobinic acid

## **Answer: D**



**View Text Solution** 

**120.** When the oxygne supply to the tissue is inahequaate the condition is

A. asphuyxia

- B. apnea
- C. dyspenea
- D. hypoxia

#### **Answer: D**



**Watch Video Solution** 

**121.** Oxygen affinity of haemoglobin is increased by all of the following except

A. alkalosis

- B. hypoxia
- C. increased hbf
- D. huypothermia

## **Answer: B**



- **122.** All are features of exercise except
  - A. left shift of hb  $-O_2$  dissoication curve
  - B. increased blood supply to muscle

- C. increase stroke volume
- D. increase  $O_2$  extraction

## **Answer: A**



- **123.** Vital capacity, the maximum volume of air a person can inhale, is measured with
  - A. spirometer
  - B. stethoscope

- C. aspirator
- D. sphygmomanometer

## **Answer: A**



**Watch Video Solution** 

**124.** Go through th following statemetrs carefuly

- A. I,ii & iii
- B. ii, iii & iv

C. I, ii & iv

D. iii & iv

## **Answer: B**



**View Text Solution** 

# 125. Go through th following statements

A. I,ii & iii

B. I,iii & iv

C. ii, iii & iv

D. all are correct

## **Answer: B**



**View Text Solution** 

## 126. Which match is incorrect

- A. inspiratory t.v + irv 3500
- B. vital capacity erv+irv +rv 5000
- C. functional residual capacity erv + rv 2200
- D. expiratory capacity tv+ erv 1500

#### **Answer: B**



**Watch Video Solution** 

**127.** Read the following statement about human respiration ltbgt (i) trachea divides at the level of 6th thoracic vertebra (ii) terminal bronchioles alveoli and their ducts form the respiratory part of this system (iii) contraction of diaphragm increases volume of thoracic chamber doosoven trally (iv) the internal intercostals help in inspiration A. all except (iv) are true

B. only (iii) and (iv) are false

C. only (i) is true

D. none is true

## **Answer: D**



**Watch Video Solution** 

**128.** When  $CO_2$  is exhaled out of the lungs which layters does it pass through in the correct order from inside to outside?

A. ciliated epithelium basement membrane endothelium

B. endothelium basement membrane simple cuboidal epithelium

C. simple squamous epithelium basement membrane endotrhelium

D. endothelium basement membrane simple squamous epithelium

**Answer: D** 



**129.** Four possibilites for the transport of carbon dioxide from the body cells to the lungs are listed below which possibility does no exist?

- A. bound to the ferro ions of haemoglobin in erythrocytes
- B. As a hydrocarbonate ion in the buffering system of the blood

C. As a hydrocarbonate ion in the buffering system of the blood

D. dissolved in blood plasma and in erythrocyte cytoplasm

## **Answer: A**



**View Text Solution** 

**130.** A yoga teacher is demonstrating the technique of breathing exericse during forced

expiration the actively contracting muscles in

A. diaphragm

his body include

B. sternocleidomastoid

C. abdominal muscles

D. external intercostals

## **Answer: C**



**131.** Arrange the following in an ascending order of volume

1 expiratory reserve volume

2 inspiratory capacity

3 tidal volume

4 residual volume

A. 
$$(iii) < (i) < (iv) < (ii)$$

$$\mathsf{B.}\,(iv) < (i) < (iii) < (ii)$$

$$\mathsf{C.}\left(iv\right)<\left(ii\right)<\left(iii\right)$$

$$\mathsf{D.}\,(iii) < (iv) < (ii) < (i)$$

## **Answer: A**



## **Watch Video Solution**

**132.** Increase in concentration of bicarbonated in blood plasam would result in increased

- A. ventilation of lungs
- B. urination
- C. ultrafiltration
- D. salivation

#### **Answer: A**



## **Watch Video Solution**

- **133.** The correct statement about respiration are
- (i) In cockroach gaseous exchange occurs mainly between tracheoles and haemolymph(ii) increase in inspiratory capacity does not involve an incrase in tidal volume(iii) partial pressure of oxygen in blood is less

than that in alveoli

(iv) chloride shift in ertyrocytes maintain the ionic ablance A. I and ii B. I iii and iv C. I ii andiv

D. ii and iii

**Answer: B** 



- **134.** Read the following statements
- (i) the point of bifurcation of trachea is called carina and is at the level of 5th thoracic vertiebra
- (ii)the right bronchus is shorter iwder and more in line with trachea than the let bronchus
- (iii) the bronchioles are without cartilaginous rings
- (iv) the surfactant of lungs is secrated in infants between 6th and 7th month o flife

which of these are correct?

A. I,ii & iii

B. ii, iii & iv

C. I, iii & iv

D. all are correct

# Answer: A



- **135.** Go through the following matches
- (i) functional residual capacity =erv+ irv + rv
- (ii) expriatory capactiy =tv +erv ltrbgt (iii) vital

```
capactiy =erv + tv +irv

(iv) total lung capacity = rv+ erv + irv

which of these are correct ?
```

- A. i.ii & iii
- B. ii, iii & iv
- C. I, & iii
- D. ii & iii

#### **Answer: D**



- **136.** Go thruogh the following values
- (i) residual volume -1200 ml
- (ii) vital capacity -5.5 to 6.5 litres
- (iii) expiratory reserve -1100ml
- (iv) minut e respiratory volume -6000 to 8000

Itrbgt which of these are correct?

- A. I , ii & iii
- B. ii, iii & iv
- C. I, ii & iv
- D. all are correct

### **Answer: C**



# **Watch Video Solution**

**137.** Go through the following statements (i) the peripheral chemoreceptors for regulation of respiration are located in carotid veins and arch of aorta (ii) the primary effect of penumotaxic centre is to control the switch off point of inspiratory signal and thus limit inspiraton (iii) the chemosensitye area fo brain for

respiratory control is highly sensitive to  ${\cal O}_2$  concentration

(iv) i case of feital haemoglobin the oxygen haemoglobin dissociation curve is shifted toward left ltrbgt which of these ar correct?

A. I , ii & iv

B. ii and iv

C. ii, iii & iv

D. iii and iv

## **Answer: B**

## Watch Video Solution

138. Go through the following statements

- (i) haemoglobin is 50% satruated at arund 40-50 mm gh
- (ii) maternal haemolgobin has greater afinity
- for  $\mathcal{O}_2$  as compared to foetal haemoglobib
- (iii) olfactory epithelium of nose is called
- scheniderian membrane
- (iv) the level of  $CO_2$  has stronger effect on regulation of breathing as compard to  $O_2$

level

which of these are correct?

A.I, iii & iv

B. ii & iii

C. I,ii & iii

D. iii & iv

### **Answer: D**



**139.**  $O_2$  dissociation curve is shifted to right in all except

- A. hype capenea
- B. rise in temperature f
- C. raised 2.3 dpg level
- D. metabolic alkalosis

**Answer: D** 



**View Text Solution** 

**140.** It is dangerous to hold breath after porlonged hyperventialtion because

A. lungs can collapse

B.  $CO_2$  narcosis

anoxia can come close to dangerous

C. due to the lack of stimulation by  $CO_2$ 

levels

D. decreased  $CO_2$  shift the oxygen dissociation curve to the light

# Answer: C

**141.** External respiration allows the exchangeof carbon dioxide for oxygen at any altitue which of he following is not an adaptaion to living high abouve the sea level ?

A. an increase in 2,3 bpg concentration which shifts the  ${\cal O}_2$  dissociation curve to the right

B. increased porduction of red blood cells by the bone marrow

C. decreased systhesis of ertyropoietin by the kidney

D. hyperventilation

Answer: C



**142.** Which of the following would be expected to have the greatest effect on the breathing effort?

A. slight change in venous carbon dioxide

B. large decrease in artial oxygen

C. large increase in arterial carbon dioxide

D. no change in hydrogen ion

concentration

### **Answer: C**

**143.** Which of the following statement correctly describes the respiratory tract?

I the right lung is larger than the left

II expiration is predominantly a passive phenomenon

III air enters the lungs because of created negative pressure

A. I only

B. I and ii only

C. ii and ii only

D. i ii and iii

**Answer: D** 



**Watch Video Solution** 

**144.** A person suffers punctures in his chest cavity in an accident, without any damage to the lungs its effect could be

A. Reduced breathing rate

- B. Rapid increase in brathing rate
- C. No change in respiration
- D. Cessation of breathing

#### **Answer: D**



**Watch Video Solution** 

**145.** Mark the true statement among the following with reference to normal breathing.

A. inspiration is a passive process where as

expiration is active

B. inspiration is an active process where as expiration is passive

C. inspiration and expiration are active processes

D. inspiration and expriation are passive processes

# **Answer: B**



**146.** A person breathes in some volume of air by forced inspiration after having a forced expiration. This quantity of air taken in is

A. total lung capacity

B. tidal volume

C. vital capacity

D. inspiratory capacity

### **Answer: C**



**147.** Respiratory process is regulated by certain specialized centres in the brain. One of the following listed centres can reduce the inspiratory duration upon stimulation

A. medullary inspiratory centre

B. pneumotaxic centre

C. apneustic centre

D. chemosensitive centre



# **Watch Video Solution**

**148.**  $CO_2$  dissocated from carbamino haemoglobin when

- A.  $pCO_2$  is high &  $pO_2$  is low
- $\operatorname{B.}pO_2$  is high &  $pCO_2$  is low
- C.  $pCO_2$  and  $pO_2$  are equal
- D. none of the above



- **149.** From the following relationship between respiration volumes and capacities, mark the correct option.
- (i) Inspiratory Capacity (IC) = Tidal Volume + Residual Volume
- (ii) Vital Capacity (VC) = Tidal Volume (TV) +
  Inspiratory Reserve Volume (IRV) + Expiratory
  Reserve Volume (ERV)

```
(iii) Residual Volume (RV) = Vital Capacity (VC) -
Inspiratory Reserve Volume (IRV)
(iv) Tidal Volume (TV) = Inspiratory Capacity
(IC) - Inspiratory Reserve Volume (IRV)
   A. I incorrect ii incorrect iii incorrect iv
     correct
   B. I incorrect ii correct iii incorrect iv
     correct
   C. I correct ii incorrect iii correct iv correct
   D.I correct ii incorrect iii correct iv
     incorrect
```



# **Watch Video Solution**

**150.** When  $CO_2$  concentration in blood increases breathing becomes

- A. slow and deep
- B. faster and deeper
- C. shallower and slow
- D. there is no effect on breathing



**Watch Video Solution** 

151. Blood analysis of a patient reveals an unusually high quantity of carboxyhemoglobin content. Which of the following conclusion is the most likely to be correct? The patient has been inhaling poliuted air containing unusually high content of

A. carbon dioxide

- B. carbon monoxide
- C. carbon disulphide
- D. chloroform



**Watch Video Solution** 

152. People living at sea level have around 5 million RBC per cubic millimetre of their blood whereas those living at an altitude of 5400

metres have around 8 million. This is because at high altitude.

A. people get pollution free air to breth and more oxygen is availabel

B. atmospheric  ${\cal O}_2$  level is less and hence more rvcs are needed to absorb the required amount of  ${\cal O}_2$  to sruvivie

C. there is ore uv radiation which enhanes r bc production

D. people eat more nutritive food there fore more rbcs are formed

**Answer: B** 



**Watch Video Solution** 

**153.** Which one of the following statement is in correct ?

A. the residual air in lungs slightly decreaes the efficeency of respiration in mammals

B. the presence of non respeiratory air sacs increases the efficiency of respiration in birds

C. in insects circulating body fluids serve to distributed oxygen to tissued

D. the principla of countercurrent flow facilitates efficeent respiration in gills of fishes

## **Answer: C**



**154.** The majority of carbon dioxide produced by our body cells is transported to the lungs -

A. dissolved in the blood

B. as bicarbonates

C. as carbonates

D. attached to hemoglobin

**Answer: B** 



- 155. what is vital capacity of our lungs
  - A. total lund capacity minus residual volume
  - B. inspiratory reserve volume plus tidal volume
  - C. total lung capacity minus expiratory resrerve volume
  - D. inspiratory reserve volume plus expiratory reserve volume

### **Answer: A**



# **Watch Video Solution**

156. the haemoglobin of a human foetus

A. has a higher affinity for oxygenthan that of an adutl

B. has a lower affintiy for oxygen than that of the adult

C. its affinity for oxygen is the same as that of an adult

D. has only 2 protein subunite instead fo 4

## **Answer: A**



**Watch Video Solution** 

**157.** The r espiratory centre in medulla is sensitive to

A. high  $cop_2$  and high  $h^+$  concentration

- B. low  $o_2$  concentration
- C. high  $o_2$  concentration
- D. all of the above

### **Answer: A**



**Watch Video Solution** 

**158.** Listed below are four respriatory capacities (i-iv) and four jumbled respiratory

# volumes of a normal human adult

Respiratory capacities	Respiratory volumes
(i) Residual volume	2500 mL
(ii) Vital capacity	3500 mL
(iii) Inspiratory reserve volume	1200 mL
(iv) Inspiratory capacity	4500 mL

A. I 4500 ml (ii) 3500 ml

B. ii 2500 ml iii 4500 ml

C. iii 1200 ml iv 2500 ml

D. iv 3500 ml I 1200 ml

### **Answer: D**



**View Text Solution** 

**159.** Which two of the following changes (A-B) usually tend to occur in the plain dwellers when they move to high altitudes (3500 m or more)

- (A) Increase in red blood cell size
- (B) Increase in red blood cell production
- (C) Increased breathing rate
- (D) Increase in thrombocyte count

A. I and ii

B. ii and ii

C. iiii and iv

D. I and iv

**Answer: B** 



**Watch Video Solution** 

**160.** A large proportion of oxygen is left unused the human blood even after its uptake by the body tissue. This  $\mathcal{O}_2$ 

A. acts as a reserve during muscular exercise

B. raises the  $pco_2$  of blood to 75 mm of hg

C. is enough to keep oxyhaemoglobin sat uration at 96%

D. helps in releasing more  $O_2$  to the epithelial tissues

### Answer: A



**161.** Which one of the following is the correct statement for respiration in humans?

A. Neural signals form peneumotoxic centre in poins region of brain can increase

B. worker in grinding and stone breaking industries may suffer from lung fibrosis

C. about 90% of carbon dioxide  $(CO_2)$  is carried by haemoglobin as carbamino haemoglobin

D. cigarette smoking may lead to inflammation of bronchi

**Answer: B** 



**Watch Video Solution** 

**162.** People who have migrated from the planes to an area adjoining Rohtang pass about six months back

A. are not physically fit to play games like football

B. suffer form altitude sickness with symptoms like nausea fatigue tec

C. have the sual rvc count but their haemoglobin has very high binding affinity to  $\mathcal{O}_2$ 

D. have more rvcs and their haemoglobin has a lower binding affinity to  $o_2$ 

# Answer: D

**163.** Which one of the following is a possibility for most of us in regards to breathing, by making a conscious effort

A. one can breathe out air totally without oxygen

B. one can breathe out air through eustachian tubes by closing both the nose and the mouth

C. one can consciulsly breathe in and breathe out by moving the diaphragm alone without moving the disphragem alone without moving the rigbs at all

D. the lungs can be made fully emplty by forcelfuly breathing out all air form

# Answer: C



**164.** Bulk of carbon dioxide  $(CO_2)$  released from body tissues into the blood is present as

A. bicarbonate in blood plasma and rbcs

B. free  $cO_2$  in blood plasma

C. 70% carbamino haemoglobin and 30 % as bicarbonate

D. carbamino haemoglobin in RBCs

**Answer: A** 



# **165.** Oxygen dissociation curve of haemoglobin is

- A. sigmoid
- B. hyperbolic
- C. hypobolic
- D. hypobloic

# **Answer: A**



166. PH of blood in arteries and veins is

A. more in veins less in arteries

B. more in arteries less in veins

C. same

D. no definite relation

**Answer: B** 



**Watch Video Solution** 

167. The left lung of human is divided in to

- A. one lobe
- B. two lobes
- C. three lobes
- D. four lobes

# **Answer: B**



**Watch Video Solution** 

**168.** A major percentage (97%) of  $O_2$  is transported by RBCs in the blood. How does

the remaining percentage (3%) of  $O_2$ transported?

A. 3 percent

B. 97 percent

C. 70 percent

D. 7 percent

# **Answer: B**



**169.** What percent (%) of  $CO_2$  is transported as bicarbonate  $(HCO_3)$  with the help of the enzyme carbonic anhydrase?

- A. 0.7
- B. 20-25%
- C. 0.97
- D. 0.07

# **Answer: B**



**170.** Muscles contains a red coloured oxygen storing pigment called : —

A. Hemoglobin combines with CO instead of with  ${\cal O}_2$  and product cannot dissociate

B. myoglobin

C. erythrocruorin

D. hemolymph

**Answer: B** 

171. Expiratory capacity is

A. tidal volume

B. expiratory reserve volume

C. residual volume

D. sum of tidal volume and expiratory

reserve volume

# **Answer: D**



# 172. The urge to inhale in humans results from

A. rising  $pco_2$ 

B. rising  $po_2$ 

C. falling  $pcO_2$ 

D. falling  $po_2$ 

# **Answer: A**



**173.** A person is suffering from frequent episodes of nasal discharge, nasal congestion, reddening of eyes and watery eyes. These are the symptoms of

A. bronchial carinoma

B. bronchities

C. rhinitis

D. cyanosis

# **Answer: C**



**174.** The exchange of materials between blood and interstitial fluid is by

A. arteries

B. veins

C. capillaries of lungs

D. arterioles

**Answer: C** 



**175.** Oxygen carrying capacity of human blood is reduced due of the pollution of

- A.  $CO_2$  on RBCs
- B. CO
- $\mathsf{C}.\,SO_2$
- D.  $O_3$

**Answer: B** 



**176.** Haemoglobin value for a healthy adult male is

- A. 10g/100ml
- B. 11g/100ml
- C. 12g/100ml
- D. 14-15g/100ml

# **Answer: D**



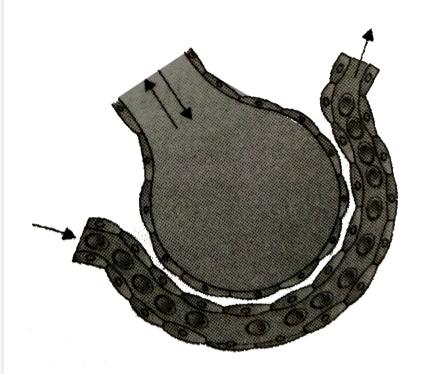
**177.** The exchange of gases between blood capilaries and alveoli in the lung is thrugh

- A. simple diffusion
- B. active transport
- C. osmosis
- D. facilited diffusion

**Answer: A** 



**178.** The factor which does not affect the rate of alveolar diffusion is



A. solubility of gases

B. thickness of the memebranes

C. pressence gradient

D. conentration gradient

#### **Answer:**



**Watch Video Solution** 

**179.** Pneumotaxic centre which can moderate the functions of the respiratory rhythm centre is present at

A. pons region of brain

B. thatlamus

C. spinal cord

D. right cerebral hemsphere

**Answer: A** 



**Watch Video Solution** 

**180.** Hyproxia corresponds to

A. any change in the relative r ates of development of different cell lines in body

B. hardening and loss of elasticity of arteries

C. deficeincy o foygen in body tissures

D. sudden interruption of blood flow to a portion of brain due to blockage of cerebral blood vessel

**Answer: C** 



**181.** After forceful inspiration, the amount of air that can be breathed out by maximum forced expiration is equal to

A. inspiratory reserve voume (irv) +
expiratory reserve voume (erv)+ tidal
volume (tv) + residual volume (rv)

B. irv+rv+erv

C. irv+tv+erv

D. tv+rv+erv

#### **Answer: C**



- **182.** Choose the right sequential phenomena among following during the delivery of  ${\cal O}_2$  from blood to tissue
- P. Absorption of  $CO_2$  by the blood
- Q. Reaction of absorbed  $CO_2$  with  $H_2O$  to from  $H_2O_3$  within RBC and its conversion into  $H^+$  and  $HCO_3^-$  ions
- R. Reaction of absorbed  $CO_2$  with  $H_2O$  in

plasma to form  $H_2CO_3$  and its conversion into  $H^+$  and  $HCO_3^-$ S. Combination of  $H^{\,+}$  with haem portion of  $HbO_2$  to release  $O_2$ T. Compliantion of  $HCO_3^-$  with haem portion  $HbO_2$  to form reduced haemoglobin and release of  $O_2$ A. p,q,t B. p,r,s C. p,q,s D. p,r,t

#### **Answer: C**



- **183.** Approximately seventy percent of carbon dioxide absorbed by the blood will be transported to the lungs
  - A. as carbamio=no haemoglobin
  - B. as bicarbonate ions
  - C. in the form of dissolved gas moleculs
  - D. by binding to rbc

#### **Answer: B**



# **Watch Video Solution**

**184.** Name the pulmonary disease in which alveolar surface area involved in gas exchange is drastically redsuced due to damage in the alveolar walls

- A. pleurisy
- B. emphysema
- C. pneumonia

D. asthma

# **Answer: B**



**Watch Video Solution** 

**185.** Name the chronic respiratory disorder caused mainly by cigarette smoking

A. asthma

B. respiratory acidosis

C. respiratory alkalosis

D. emphysema

**Answer: D** 



**Watch Video Solution** 

**186.** Reduction in pH of blood will

A. reduce the blood supply to the brian

B. decrease the affinity of hemoglobin with

oxygen

C. release bicarbonate ions by the liver

D. reduce the rate of heart beat

# **Answer: B**



**Watch Video Solution** 

**187.** The partial pressure of oxygen in the alveoli of the lungs is

A. equal to that in the blood

B. more than that in the blood

C. less than that in the blood

D. less than that of carbon dioxide

**Answer: B** 



**Watch Video Solution** 

**188.** Lungs do not collapse between breaths and some air always remains in the lungs which can never be expelled because

A. there is a negative pressure in the lungs

- B. there is a negative intrapleural presure lulling at the lung walls
- C. there is a positive intrapleural pressure
- D. pressure in the lungs is higher than the atmospheric pressure

# Answer: B



**189.** Lungs are made up of air-filled sacs, the alveoli . They do not collapse even after forceful expiration because of

A. residual volume

B. inspiratory reserve volume

C. tidal volume

D. expiratory reserve volume

# **Answer: A**



**190.** Which of the following is an occupational respiratory disorder

- A. emphysema
- B. botulism
- C. silicosis
- D. anthracis

**Answer: C** 



**191.** Which of the following options correctly represents the lung conditions in asthma and emphysema, respectively

A. decreased respiratory surface inflamation of bronchioles

B. increased respiratory surface inflammatoon of bronchioles

C. increased number of bronchioles in creased resiratory surface

D. inflammation of bronchiloes decreased

respiratory surface

**Answer: D** 

