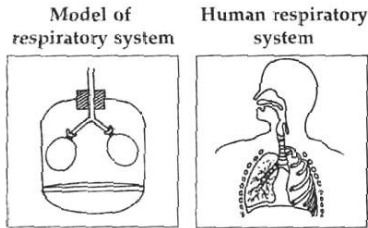


Chapter 1 : Respiration

Name :

Form : Date :

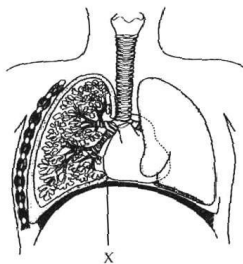
1. A group of students built a model of the human respiratory system to investigate the mechanism of breathing in and breathing out. (2004)



Which of the following pairs is **correct**?

	Model of respiratory system	Human respiratory system
A	<ul style="list-style-type: none"> • Balloon • Rubber sheet • Bell jar 	<ul style="list-style-type: none"> • Lungs • Diaphragm • Thoracic cavity
B	<ul style="list-style-type: none"> • Rubber sheet • Air space inside bell jar • Balloon 	<ul style="list-style-type: none"> • Diaphragm • Thoracic cavity • Lungs
C	<ul style="list-style-type: none"> • Rubber sheet • Balloon • Bell jar 	<ul style="list-style-type: none"> • Lungs • Diaphragm • Thoracic cavity
D	<ul style="list-style-type: none"> • Balloon • Air space inside bell jar • Rubber sheet 	<ul style="list-style-type: none"> • Thoracic cavity • Rib cage • Diaphragm

2. The diagram shows part of the human respiratory system. (2005)



What will happen when structure X contracts and becomes flattened?

- A Air from outside enters the lungs.
- B The rib cage goes down and inwards.
- C The volume of the thorax cavity decreases.
- D Air pressure inside the thorax cavity increase.

3. Which features help gas exchange between the alveolus and blood capillaries to take place efficiently? (2006)

	Alveolus wall		Number of blood capillaries
	Thickness	Condition	
A	Thick	Moist	A few
B	Thin	Moist	Many
C	Thick	Dry	A few
D	Thin	Dry	Many

4. Diagram 3 shows the passage of air through the human respiratory system while exhaling. (2006)

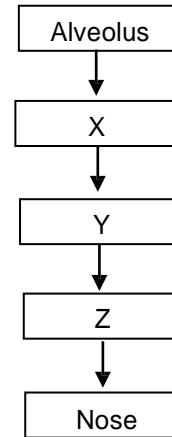


Diagram 3

Which of the following represents X, Y and Z?

	X	Y	Z
A	Trachea	Bronchus	Bronchioles
B	Bronchioles	Trachea	Bronchus
C	Bronchus	Trachea	Bronchioles
D	Bronchioles	Bronchus	Bronchus

5. The following statements are about the transportation of oxygen in the human body. (2007)

- K – Oxyhemoglobin breaks into oxygen and hemoglobin
- L – Oxygen diffuses through alveoli into the blood capillaries
- M – Oxygen combines with hemoglobin to form oxyhemoglobin
- N – Oxyhemoglobin is transported to all parts of the body

Which of the following is the correct sequence of the transportation?

- A M, K, L, N
- B K, L, M, N
- C N, K, L, M
- D L, M, N, K

6. Diagram 15 shows the structure of human lungs. (2008)

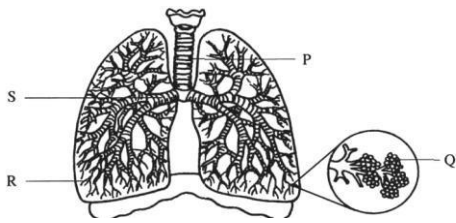


Diagram 15

Which of the following is represented by P, Q, R and S?

	P	Q	R	S
A	Alveous	Bronchus	Trachea	Bronchiole
B	Trachea	Bronchus	Bronchiole	Alveolus
C	Trachea	Alveous	Bronchiole	Bronchus
D	Alveous	Bronchiole	Trachea	Bronchus

7. Diagram 10 shows a blood capillary surrounding an alveolus. (2009)

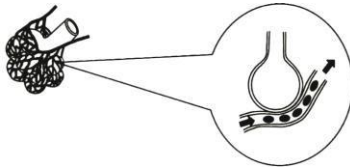


Diagram 10

What makes the concentration of oxygen low in alveolus?

- A Oxygen diffuses into the blood capillary
- B Carbon dioxide diffuses into the blood capillary
- C Oxygen diffuses into the alveolus
- D Carbon dioxide diffuses into the red blood cell

8. Figure 3 shows the model of the human respiratory system.

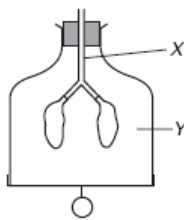


Figure 3

What are represented by X and Y?

	X	Y
A	Thoracic cavity	Trachea
B	Trachea	Thoracic cavity
C	Thoracic cavity	Bronchus
D	Bronchus	Thoracic cavity

9. Which of the following is a disease of the respiratory system? (2009)

- A Anaemia
- B Diabetes
- C Bronchitis
- D Leukaemia

10. The information below is about substance W.

- Found in cigarette smoke
- Blackens lungs
- Carcinogenic

What is W ?

- A Tobacco tar
- B Sulphur dioxide
- C Bitumen
- D Nicotine

11. Figure 6 shows gases P and Q diffusing into and out of the blood capillaries in the body tissues.

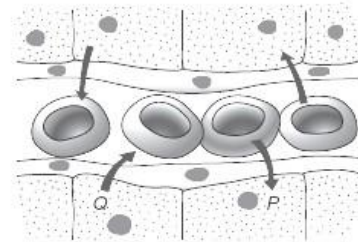


Figure 6

What are P and Q?

	P	Q
A	Oxygen	Oxygen
B	Carbon dioxide	Carbon dioxide
C	Oxygen	Carbon dioxide
D	Carbon dioxide	Oxygen

12. Which of the following is produced in the process of respiration?

- I Carbon dioxide
- II Energy
- III Water vapour

- A I and II only
- B I and III only
- C II and III only
- D I, II and III

Chapter 2 : Blood Circulation and Transport

Name :

Form : Date :

1. Which of the following blood groups is the universal recipient ? (2004)

- A Blood group A
- B Blood group B
- C Blood group AB
- D Blood group O

2. The table shows two components of blood, X and Y. (2005)

Component	Function
X	Acts as a solvent for digested food
Y	Helps in blood clotting

What are components X and Y?

	X	Y
A	Platelets	Red blood cells
B	White blood cells	Plasma
C	Plasma	Platelets
D	Red blood cells	White blood cells

3. Table 4 shows the blood groups of four students. (2006)

Table 4

Student	Blood group
R	A
S	B
T	AB
U	O

Student X with blood group O needs a blood transfusion.

Which of the following students can donate blood to student X?

- A U only
- B S and T only
- C S, T and U only
- D R, S, T and U

4. Diagram 16 shows a cross section of a monocotyledon stem with vascular bundles. (2008)

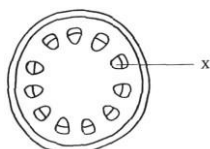


Diagram 16

What is the function of X ?

- A Transports water only
- B Transports water and minerals
- C Transports minerals only
- D Transports glucose

5. Diagram 18 shows a cross-section of a heart. (2006)

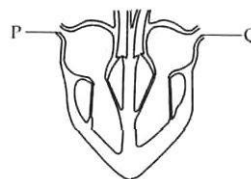


Diagram 18

P and Q are blood vessels in the heart. Which of the following is true about P and Q?

	P	Q
A	Aorta which carries deoxygenated blood	Pulmonary artery which carries oxygenated blood
B	Vena cava which carries deoxygenated blood	Pulmonary vein which carries oxygenated blood
C	Pulmonary artery which carries oxygenated blood	Aorta which carries deoxygenated blood
D	Pulmonary vein which carries oxygenated blood	Vena cava which carries deoxygenated blood

6. Diagram 16 shows the blood circulatory system in the human body. (2007)

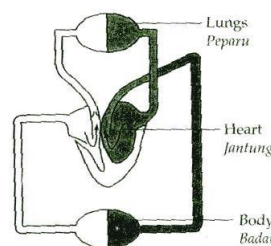


Diagram 16

Which of the following statements is true about oxygenated and deoxygenated blood?

- A Deoxygenated blood flows from the heart to all parts of the body
- B Oxygenated blood flows from the lungs to the heart and to all parts of the body
- C Oxygenated blood flows from the heart to the lungs and to all parts of the body
- D Deoxygenated blood flows from the lungs to the heart and to all parts of the body

7. Which statement shows the importance of blood donation? (2009)

- A Patients suffering from AIDS need blood transfusion
- B There is no substitute for blood
- C Recipient can receive blood from all blood groups
- D Anybody can donate blood at any hospital

8. Figure 20 shows the cross section of a human heart.

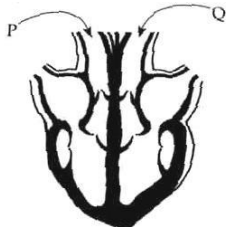


Figure 20

P and Q are two blood vessels in the heart. Which of the following is true about P and Q?

	P	Q
A	Pulmonary artery which carries oxygenated blood	Aorta which carries deoxygenated blood
B	Pulmonary artery which carries deoxygenated blood	Aorta which carries oxygenated blood
C	Vena cava which carries oxygenated blood	Pulmonary vein which carries deoxygenated blood
D	Vena cava which carries deoxygenated blood	Pulmonary vein which carries oxygenated blood

9. Which of the following is **not** the function of blood?

- A To transport oxygen to the cells
- B To transport nutrients to the cells
- C To distribute heat throughout the body
- D To transport carbon dioxide to the cells

10. A ring of bark was removed from the stem of a woody plant as shown in Figure 3.

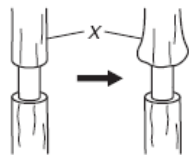


Figure 3

What causes part X to become swollen after some time?

- A Water has accumulated in part X.
- B Dissolved minerals have accumulated in part X.
- C Food substances have accumulated in part X.
- D Part X has become infected.

11. What are the properties of oxygenated blood?

- I Rich in oxygen
- II Rich in waste products
- III Bright red in colour

- A I and II only B
- I and III only C
- II and III only D
- I, II and III

12. Figure 4 shows the cross section of the stem of a plant.

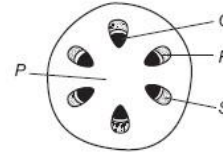


Figure 4

Which part transports water and dissolved minerals?

- A P C R
- B Q D S

13. The cross section of the root of a dicotyledon is shown in Figure 5.

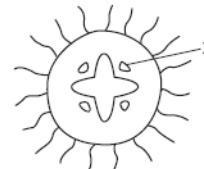


Figure 5

What is the function of X?

- A Transports water and dissolved minerals
- B Gives support to the roots
- C Transports synthesised food substances
- D Excretes food substances

14. Transpiration is a process in which plants

- A breathe
- B lose water due to evaporation through the roots
- C lose water due to evaporation through the leaves
- D lose water through evaporation due to humidity

15. The characteristics of blood component Y is as follows.

- Has nucleus
- Has no definite shape

Which of the following is Y?

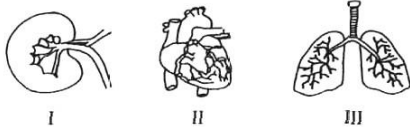
- A White blood cell
- B Platelet
- C Red blood cell
- D Plasma

Chapter 3 : Excretion

Name :

Form : Date :

1. Which of these organs are the excretory system? (2004)



- A I and II only
- B I and III only
- C II and III only
- D I, II and III

2. The following information shows steps taken during the process of dialysis. (2006)

- L – The waste product diffuses out from the blood through pores in the tubes.
- M – The blood from the artery flows through the tubes which are immersed in salt solution.
- N – The filtered blood flows into the veins of the blood circulation of the patient.

Which of the following is the correct sequence for the process of dialysis?

- A L → M → N
- B M → L → N
- C N → M → L
- D M → N → L

3. The human excretory organs consist of skin, lung and kidney. Which of the following pairs are correct? (2005)

	Excretory Organ	Excreted material
I	Skin	Water and mineral salts
II	Lung	Water and carbon dioxide
III	Kidney	Urea, water and mineral salts

- A I and II only
- B I and III only
- C II and III only
- D I, II and III

4. Diagram 17 shows the human urinary system. (2007)

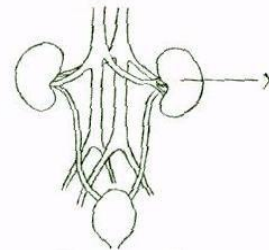


Diagram 17

What is the function of X ?

- A Carries urine to the urinary bladder
- B Filters the blood which contains waste products
- C Removes carbon dioxide and water from the body
- D Brings blood containing waste products to the kidney

5. Diagram 18 shows a machine used by a patient with malfunction of both kidneys. (2007)

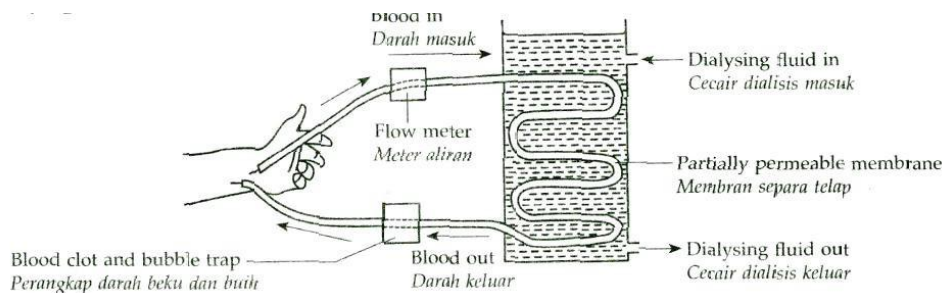


Diagram 18

What is the function of this machine?

- A To filter urea from the kidney
- B To filter water from the blood
- C To filter protein and glucose from the kidney
- D To filter urea and mineral salts from the blood

6. Diagram 17 shows a human urinary system. (2008)

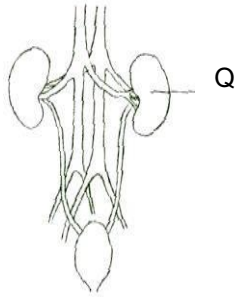
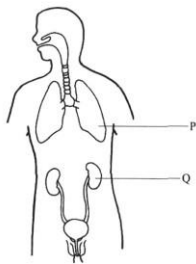


Diagram 17

What is the main function of Q ?

- A Maintains minerals salts in the body
- B Removes glucose from the body
- C Maintains the body temperature
- D Removes waste products

7. Diagram 11 shows the human excretory organs. (2009)



What are organs P and Q?

	P	Q
A	Lungs	Urinary bladder
B	Heart	Kidney
C	Urinary bladder	Heart
D	Lungs	Kidney

8. What is the process of removing all waste products from the body? (2009)

- A Defecation
- B Sweating
- C Excretion
- D Urination

9. Skin, lungs and kidneys are the human excretory organs.

	Excretory organ	Excreted materials
I	Skin	Water, urea and mineral salts
II	Lungs	Water and carbon dioxide
III	Kidneys	Water, urea and mineral salts

Which of the following pairs are correct?

- A I and II only
- B I and III only
- C II and III only
- D I, II and III

10. Which of the following shows the correct sequence of the flow of urine from the kidney to the outside of the body?

P : Kidney
Q : Urinary bladder
R : Urethra
S : Ureter

- A $P \rightarrow S \rightarrow R \rightarrow Q$
- B $P \rightarrow Q \rightarrow S \rightarrow R$
- C $P \rightarrow S \rightarrow Q \rightarrow R$
- D $P \rightarrow R \rightarrow Q \rightarrow S$

11. Which statement is **not** true about the function of the kidneys?

- A Eliminate urea
- B Form urea
- C Eliminate water
- D Help keep the chemical composition of the blood plasma constant

12. What is the function of the part labelled Y in Figure 3?



Figure 3

- A To release urine to the outside of the body
- B To store urine temporarily
- C To filter urine
- D To reabsorb water from the urine

13. Figure 4 shows a mammalian kidney.

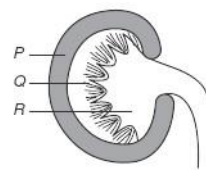


Figure 4

Which of the following are represented by P, Q and R?

	P	Q	R
A	Pelvis	Medulla	Cortex
B	Cortex	Pelvis	Medulla
C	Medulla	Cortex	Pelvis
D	Cortex	Medulla	Pelvis

14. Which of the following is a way for plants to remove complex waste products?

- A Diffusion through the stomata
- B Shedding of leaves
- C Secretion through pores in the leaves
- D Secretion through pores in the roots

