

Instructons: Each question is followed by four answer options, A, B, C and D. Choose the best option.

1. The diagram 1 shows a measuring tool.

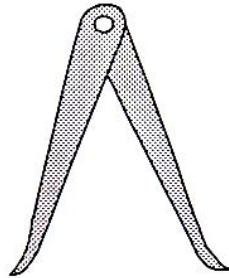


Diagram 1

What is the use of tool shows in diagram 1?

- A. To measure internal diameter of a beaker
 - B. To measure length of a curve
 - C. To measure external diameter of a test tube
 - D. To measure area of a square
2. Six identical bolts have the same mass as two similar blocks of a metal, X. If the total mass of the bolts is 240 g, what is the mass of each block of metal X?
- A. 40 g
 - B. 80 g
 - C. 100 g
 - D. 120 g
3. The diagram 2 below shows the general structure of a plant cell. Which of thr following parts labelled A, B, C or D is the vacuole of the cell?

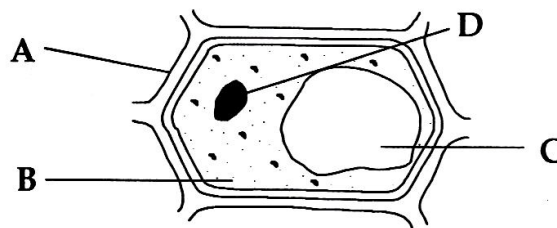




Diagram 2

4. The symbols  and  represent two different types of atoms. Which of the following diagrams represents a compound?

A.



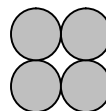
B.



C.



D.



5. The Diagram 3 shows 3 state of matter. Which of the following is true about the energy content?

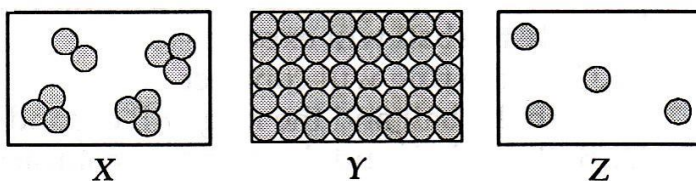


Diagram 3

	X	Y	Z
A	Lowest	Highest	Moderate
B	Moderate	Highest	Lowest
C	Highest	Moderate	Lowest
D	Moderate	Lowest	Highest

6. These are characteristics of an element.

- It is ductile and malleable
- It has a shiny surface
- It conduct heat and electricity well

Which of the following substances has the characteristics described above?

- A. Sulphur
- B. Carbon
- C. Copper
- D. Sand

7. A silver chain weights 72 g. It has a volume of 8 cm³. What is its density?

- A. 7.0 g/cm³
- B. 9.0 g/cm³.
- C. 12.0 g/cm³.
- D. 15.0 g/cm³.

8. What is the average percentage of nitrogen in the air?

- A. 0.03%
- B. 0.97%
- C. 21%
- D. 78%

9. Diagram 4 shows cell respiration in a human cell.

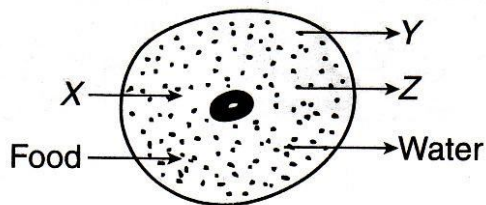


Diagram 4

Which of the following represent X, Y and Z?

	X	Y	Z
A	Carbon dioxide	Energy	Oxygen
B	Oxygen	Energy	Carbon dioxide
C	Oxygen	Carbon dioxide	Nitrogen
D	Carbon dioxide	Food	Oxygen

10. A marble is thrown upwards as shown in the diagram 5

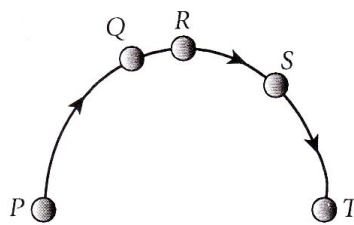


Diagram 5

In which of the positions, P, Q,R,S or T, does the stone have maximum kinetic and potential energy

	Maximum kinetic energy	Maximum potential energy
A	S	Q
B	T	R
C	P	T
D	S	R

11. In which of the following substances does heat travel by conduction?

- A. Glass
- B. Air
- C. Water
- D. Salt solution

12. A bimetallic strip in diagram 6 becomes bent after heating. What causes the bending?

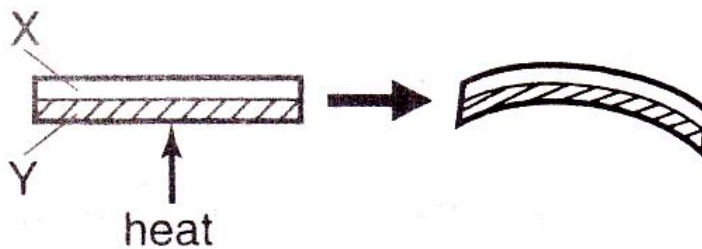


Diagram 6

- A. All the heat has been absorbed by metal Y
- B. Metal X released heat faster than metal Y
- C. Metal X expanded more than metal Y
- D. Metal Y contracted more than metal X

13. Which of the following senses is/are used by the blind to read ?

- I Hearing
- II Seeing
- III Smelling
- IV Touching

- A. IV only
- B. I and IV only
- C. II and III only
- D. III and IV only

14. Which of the following is true about the function of the following parts of the ear?

	Part of the ear	Function
A	Auditory canal	Vibrates when sound waves reach it
B	Auditory nerve	Direct the sound waves to the auditory canal
C	Ossicles	Amplify sound vibrations and transfer them to the cochlea
D	Eustachian tube	Vibrates at the same frequency as sound waves

15.

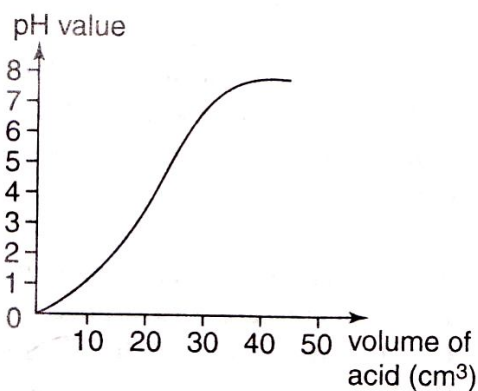


Diagram 7

The graph in diagram 7 Shows the pH value during neutralisation between hydrochloric acid and Sodium hydroxide solution. How much hydrochloric acid is required for neutralisation?

- A. 20 cm³.
- B. 30 cm³.
- C. 40 cm³.
- D. 50 cm³.

16. When a glucose solution was boiled with reagent X, a brick red precipitate was formed. What is reagent X?

- A. Ethanol
- B. Iodine Solution
- C. Millon's reagent
- D. Benedict's solution

17. Which of the following combination will constitute an average balanced diet?

	Carbohydrates	Proteins	Fat, minerals, vitamins and fibre
A	15%	60%	25%
B	60 %	10 %	35%
C	50 %	45%	5%
D	5%	5%	90%

18. Diagram 8 shows the roots of a certain plant

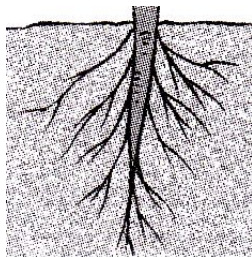


Diagram 8

Which of the following plants has the type of roots shown in the diagrams?

- A. Sugarcane
- B. Lalang
- C. Hibiscus
- D. Fern

19. Diagram 9 shows a food web

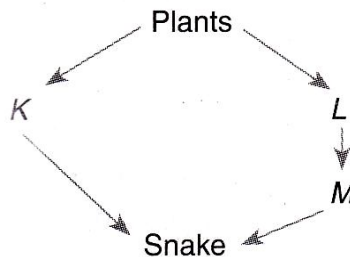


Diagram 9

Which of the following state what is possibly represented by K, L, and M?

	K	L	M
A	Frog	Rabbit	Grasshopper
B	Rabbit	Grasshopper	Frog
C	Frog	Grasshopper	Rabbit
D	Grasshopper	Frog	Rabbit

20. Which of the following release water vapour into the atmosphere?

- I Respiration
- II Combustion
- III Transpiration
- IV Photosynthesis

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

21. The following is a list of four organisms represented by S, T, U and V

S : Caterpillar
T : Fox
U : Plant
V : Chicken

Which of the following shows the correct food chain involving the four organisms?

- A. $S \rightarrow T \rightarrow U \rightarrow V$
- B. $T \rightarrow V \rightarrow S \rightarrow U$
- C. $U \rightarrow S \rightarrow V \rightarrow T$
- D. $V \rightarrow T \rightarrow S \rightarrow U$

22. What is the effect of impurities on the physical properties of water?

- I It decreases the freezing point of water
- II It decreases the melting point of water
- III It increases the boiling point of water

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

23. What can be done to make wet clothes, hung up to dry in a room, dry faster?
- A. Close all the windows in the room
 - B. Switch off all the lights in the room
 - C. Fold the wet clothes before hanging them up.
 - D. Hang the wet clothes facing an electric fan that is switched on.

24. Diagram 10 shows a syringe being used to transfer water out of a glass trough.

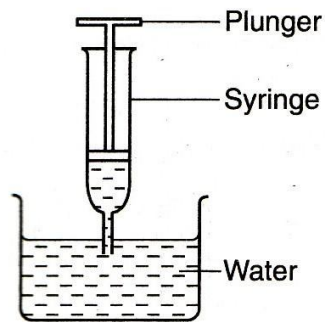


Diagram 10

When the plunger is pulled upward, the water enters the syringe because

- A. Air is less dense than water
 - B. The water molecules are attracted to the syringe.
 - C. The air pressure outside the syringe is higher than that inside it.
 - D. Water flows in all directions.
25. Which of the following is the unit for measuring force?
- A. Newton
 - B. Meter
 - C. Joule
 - D. Watt
26. Akmal swims 100m in 70 s. If Akmal weighs 84 kg, calculate his power (Assume that 1kg=10 N)
- A. 120 W
 - B. 1200 W
 - C. 7000 W
 - D. 12000 W

27. Which of the following are support systems found in animals?

- I Endoskeleton
- II Hydrostatic skeleton
- III Woody tissue

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

28. Diagram 11 shows four models, P, Q, R and S, built by Wahab.

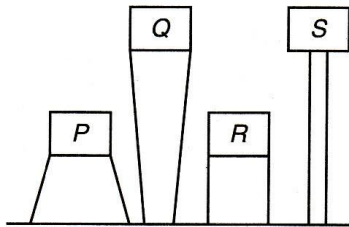


Diagram 11

Arrange the four models in the order of decreasing stability.

- A. S, Q, R, P
- B. R, P, S, Q
- C. Q, S, P, R
- D. P, R, Q, S

29. Diagram 12 shows a bottle-opener in use.

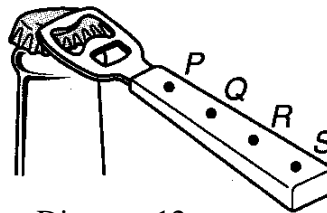


Diagram 12

At which labelled position the greatest effort is needed to open the bottle?

- A. P
- B. Q
- C. R
- D. S

30. Diagram 13 shows a lever in the state equilibrium. Using the information given above, calculate the value of **X** in Newton. (Assume that 1 kg = 10N)

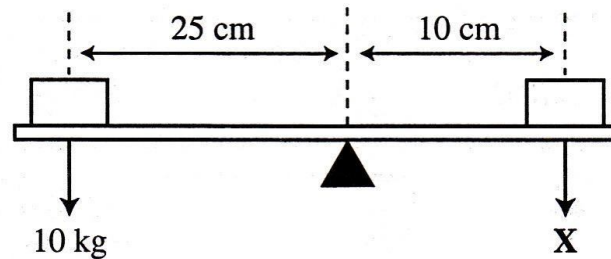


Diagram 13

- A. 25 N
- B. 40 N
- C. 250 N
- D. 400 N

31. Diagram 14 shows the path of air through the human respiratory system during inhalation.

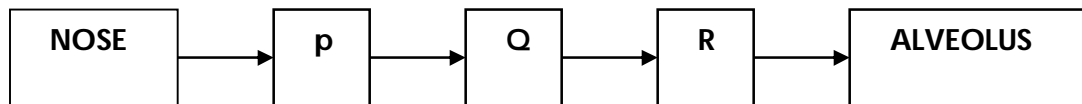


Diagram 14

Which of the following represents P , Q and R?

	P	Q	R
A	Trachea	Bronchiole	Bronchus
B	Bronchiole	Bronchus	Trachea
C	Bronchus	Trachea	Bronchiole
D	Trachea	Bronchus	Bronchiole

32. Diagram 15 shows part of the human respiratory system. What happens when the structure P becomes flat?

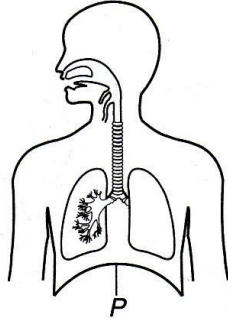


Diagram 15

- A. volume of thoracic cavity increases
 B. air in the lungs is forced out
 C. air pressure in the thoracic cavity increases
 D. the rib cage descends and goes inwards
- 33.

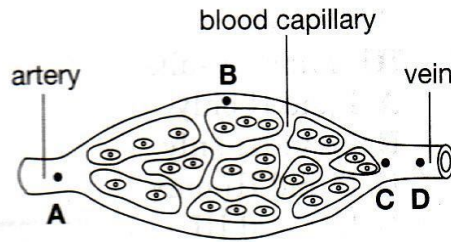


Diagram 16a

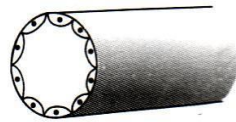


Diagram 16b

Diagram 16a above shows three type of blood vessels. Which part, A , B, C or D has the cross-section shown in Diagram 16b?

34. A person who has AB blood type can receive blood from a donor with
- A. O blood type only
 B. AB blood type only
 C. O and AB blood type only

D. O, A, B and AB blood types

35. Which of the following correctly matches the excretory organ with excretory product?

	Excretory Organ	Excretory Product
I	Lung	Water vapour
II	Skin	Water vapour
III	Lung	Carbon dioxide

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

36. The organ that removes **excess** water from the human body is

- I the skin
 - II kidneys
 - III lungs
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III

37. Which of the following is true about asexual reproduction?

- A. Two types of gametes are produced
- B. Both parents are involved
- C. The offspring varies from the parents
- D. Fertilisation involving gametes does not occur.

38. Diagram 17 shows a female reproductive system. What processes take place at P, Q and R?

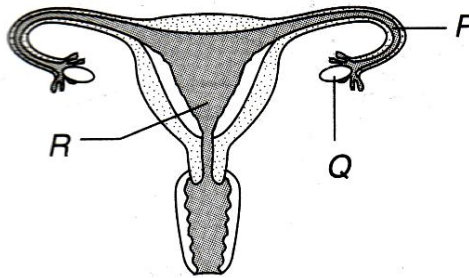


Diagram 17

	P	Q	R
A	Fertilisation	Ovulation	Implantation
B	Ovulation	Fertilisation	Implantation
C	Fertilisation	Implantation	Ovulation
D	Implantation	Ovulation	Fertilisation

- 39.

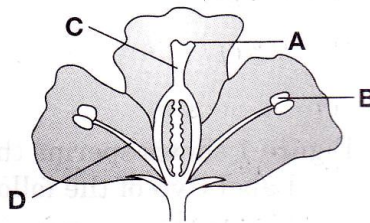


Diagram 18

Diagram 18 shows the structure of a flower. Which part A, B, C or D produces reproductive cells?

40. How do proteins contribute to the growth of a child?

- A. by supplying the child with energy
- B. by providing materials for the growth and repair of cells
- C. by forming haemoglobin as well as strong bones and teeth
- D. by preventing diseases and ensuring good health

Answers:

1. A	11. A	21. C	31. D
2. D	12. C	22. D	32. A
3. C	13. A	23. D	33. B
4. A	14. C	24. C	34. D
5. D	15. B	25. A	35. B
6. C	16. D	26. B	36. A
7. B	17. B	27. A	37. D
8. D	18. C	28. D	38. A
9. B	19. B	29. A	39. B
10. B	20. C	30. C	40. B