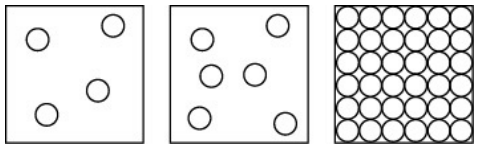
Form 1 Chapter 3 Matter

Paper 1

Answer **all** *questions. Each question is followed by four options,* **A**, **B**, **C** *and* **D**. *For each question, choose* **one** *answer only.*

1.



X *Y* *Z*

The diagram above shows three states of matter. Which of the following represent *X*, *Y* and Z **correctly**?

	X	Y	Z
A	Gas	Liquid	Solid
B	Gas	Solid	Liquid
C	Liquid	Solid	Gas
D	Liquid	Gas	Solid

2. Which of the following statements regarding matter is correct?
- **A** Matter can only be non-living things
- **B** Matter has mass and occupies space
- **C** Air is not a matter because it does not have mass
- **D** Plant is a matter because it is a living thing

3. Which of the following describes the movement of particles of oxygen gas?
- **A** The movement is fast and freely
- **B** The movement is random with a definite direction
- **C** The movement is only a vibration of a fixed position
- **D** The movement is limited because the particles are arranged in an orderly way

4. Particles of matter move the slowest in
- **A** alcohol
- **B** oxygen
- **C** stone
- **D** palm oil

5. Why does a mixture of 50 m*l* water with 50 m*l* alcohol produce a mixture that is less than 100 m*l*?
- **A** There is contraction in the volume of water
- **B** There is space in between the water and alcohol particles
- **C** There is a random movement in the water and alcohol particles
- **D** There is a portion of water evaporated due to heat from the surroundings

6. Ice cube floats on the surface of water because it

A is denser than water
B does not dissolve in water
C does not react with water
D is less dense than water

7. Which of the following substances does not take the shape of the container in which they are kept?

A Water
B Mercury
C Oxygen
D Sulphur

8. When a smoke cell is observed using a microscope, it is found that the smoke particles move randomly. This movement is caused by the

A high pressure
B low temperature
C reaction between smoke particles
D collision between smoke particles and air particles

9. The table below shows liquids with their respective densities.

Liquid	**Density / g cm^{-3}**
P	1.02
Q	0.75
R	0.98
S	1.5
Water	1.0

Which of the liquid sinks in water if it does not dissolve in water?

A *P* only
B *P* and *S* only
C *Q* and *R* only
D *P*, *Q R*, and *S*

10. When matter is cooled, the distance between its particles will

A become closer
B become further apart
C not change
D become apart and then closer again

11. The following are correct about differences between boiling and evaporation **except**

	Boiling	Evaporation
A	Occurs at boiling point only	Occurs at any temperature
B	Occurs all over the liquid	Occurs on the liquid surface only
C	A slow process	A fast process
D	Liquid changes into gas	Liquid changes into gas

12. Which of the following substances is the densest?

A Water
B Nitrogen
C Bromine
D Mercury

13. The density of cork is 0.25 g cm^{-3}. This means that the

A mass of 1 cm^3 of cork is 0.25 g
B mass of 0.25 cm^3 of cork is 1 g
C density of 1 cm^3 cork is 0.25 g
D density of 0.25 cm^3 cork is 0.25 g

14. The mass of an object is 20 g and its density is 4 g cm^{-3}. What is its volume?

A 4 cm^3
B 5 cm^3
C 8 cm^3
D 20 cm^3

15. What is the **correct** statement concerning liquid?

I Liquid has a definite shape
II The particles of liquid only vibrate in their fixed positions
III The particles of liquid are packed tightly together without space in between

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

16.

Characteristic of matter	Physical state of matter	
	P	*Q*
Attractive force between particles	Very strong	Very weak
Space between particles	Very small	Very big

The table above shows the physical state of matters *P* and *Q*. Which of the following are physical state *P* and *Q*?

	P	*Q*
A	Solid	Liquid
B	Liquid	Gas
C	Solid	Gas
D	Gas	Solid

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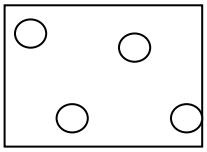


The diagram above shows an arrangement of particles of a matter. The matter

A has a fixed pattern
B has a definite volume
C follow the shape of its container
D has particles that do not collide with each other

18. Which of the following applies the principle of buoyancy?

I Ship
II Submarine
III Hot air balloon

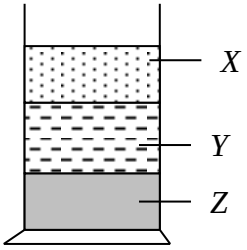
A I only
B I and II only
C II and III only
D I, II, and III

19. The density of an object depends on its

I mass
II volume
III surface area

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

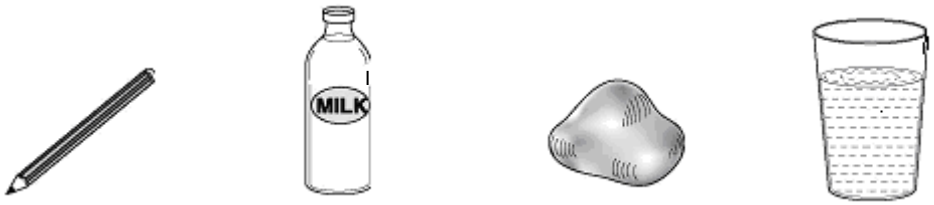
20.



The figure above shows three types of liquid. Which of the following statements is **true**?
A Liquid *Z* is the densest
B Liquid *Y* is less dense than liquid *X*
C Liquid *X* is denser than liquid *Z*
D Liquid *Z* is less dense than liquid *Y*

Paper 2
Answer the question.

The figure below shows diagrams of matters *W, X, Y* and *Z*..



W *X* *Y* *Z*

Observe the matters in the figure above.
Based on your observations,

(a) state **one** characteristic of matters *W, X, Y* and *Z*.

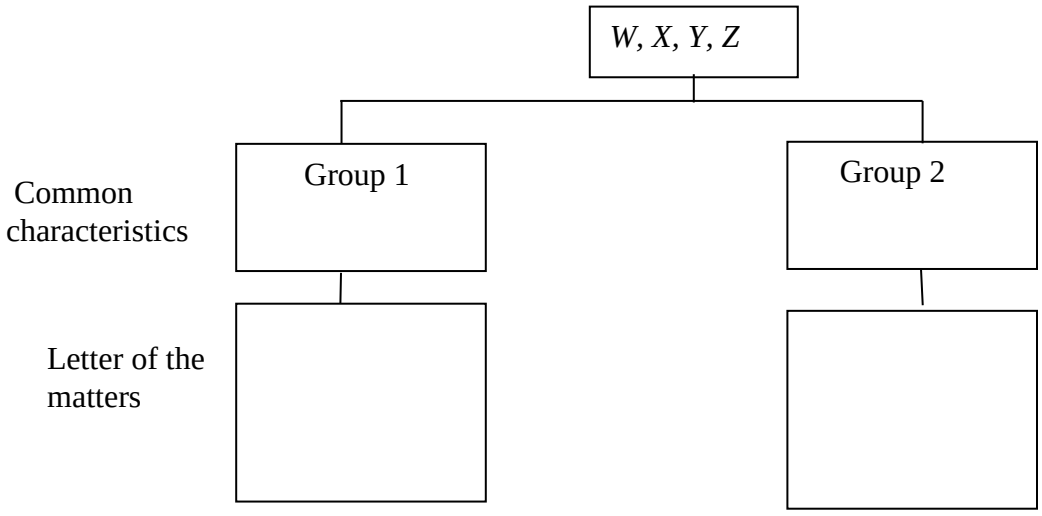
W: _____

X: _____

Y: _____

Z: _____

(b) Classify matters *W, X, Y* and *Z* in the figure above into two groups based on **common characteristics**. Write the letters of the matters belonging to each group.



Answers:

Paper 1

1	**A**	11	**C**
2	**B**	12	**D**
3	**A**	13	**A**
4	**C**	14	**B**
5	**B**	15	**A**
6	**D**	16	**C**
7	**D**	17	**C**
8	**D**	18	**D**
9	**B**	19	**B**
10	**A**	20	**A**

Paper 2

(a) *W*: A solid
X: A liquid
Y: A solid
Z: A liquid

(b) Group 1: Solid; *W*, *Y*
Group 2: Liquid; *X*, *Z*