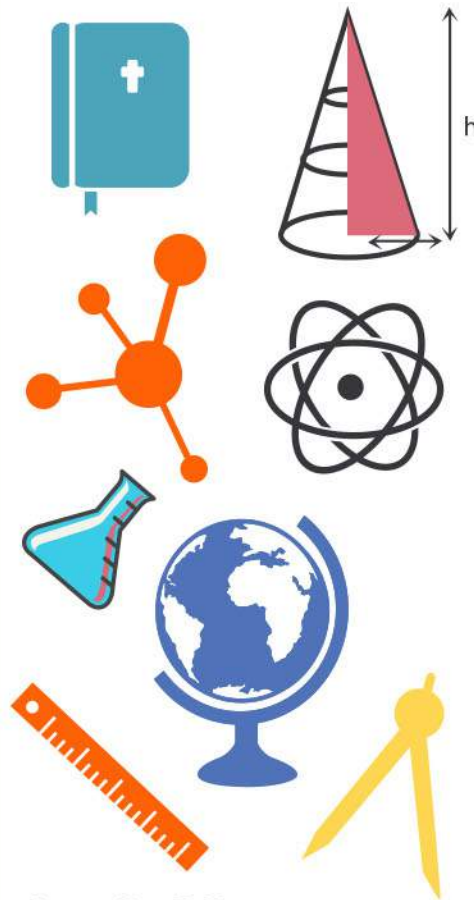


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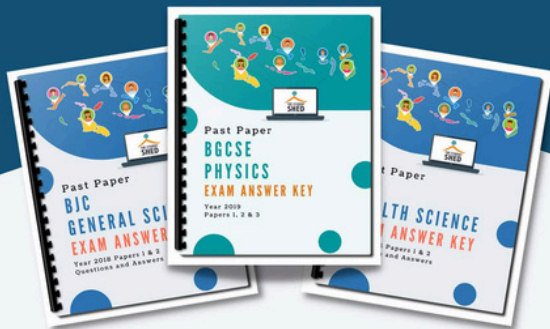
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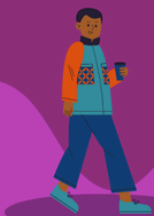
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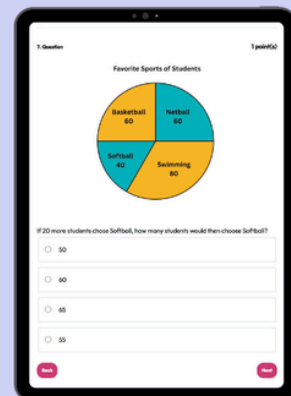
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SCHOOL No.	CANDIDATE No.
INITIALS	SURNAME

**MINISTRY OF EDUCATION
BAHAMAS JUNIOR CERTIFICATE
EXAMINATION**

**0047 GENERAL SCIENCE
PAPER 1 MULTIPLE CHOICE QUESTIONS
(40 Marks)**

Friday **30 MAY 2025** 1:00 P.M.–2:00 P.M.

INSTRUCTIONS TO CANDIDATES:

Do not open this booklet until you are told to do so.

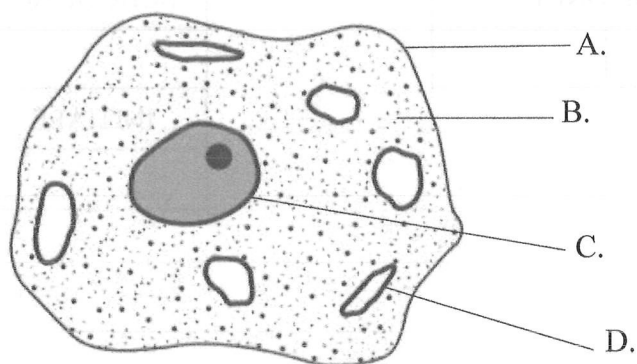
Write your school number, candidate number, surname and initials in the spaces provided at the top right hand side of this page.

For each question, there are four suggested answers A, B, C, and D. When you have selected an answer to a question, circle the letter by the answer which you have chosen.

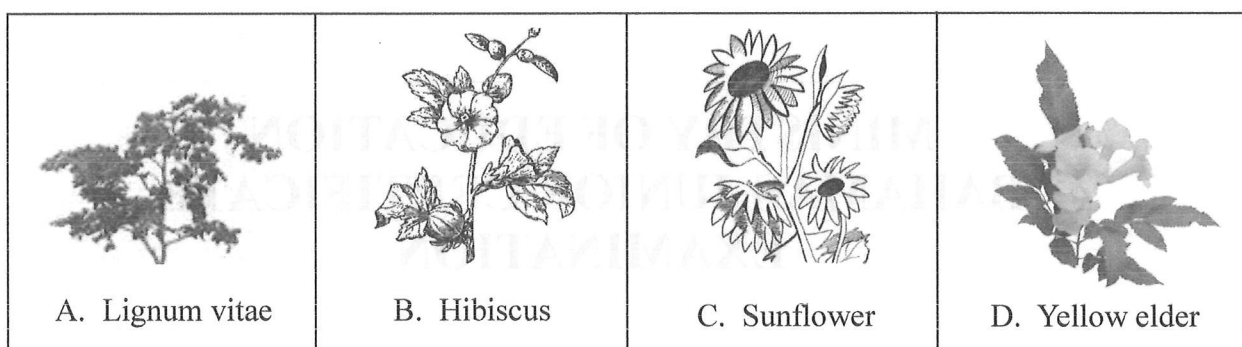
Answer **ALL** the questions in this booklet. Do any necessary rough work and calculations in your booklet.



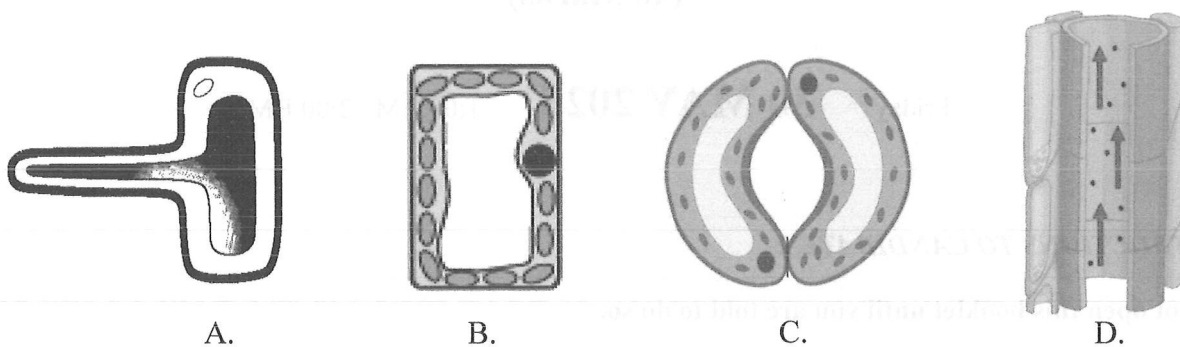
1. Which organelle is involved in the storage of food and other nutrients required for the cell to survive?



2. Which of the flowering plants is **NOT** a shrub?



3. Which of the following plant cell absorbs water and minerals from the soil?

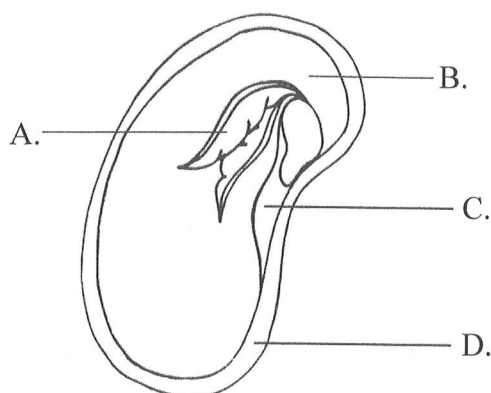


4. Which plant group **has** seeds, but **no** flowers or fruits?

- A. angiosperms
- B. ferns
- C. gymnosperms
- D. mosses



5. Which labelled structure shows the cotyledon?



6. What is matter?

- A. Anything that has mass and takes up space.
- B. The building blocks of atoms.
- C. The process of converting energy to mass.
- D. The speed at which particles move in a substance.

7. The statements below 1 through 4 describe the arrangements of particles in a substance.

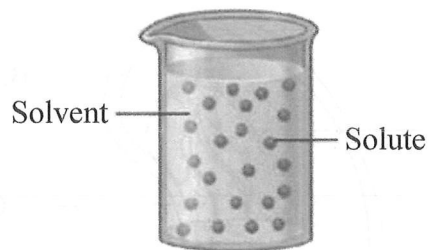
- 1. Particles move in all directions
- 2. Particles are arranged in regular patterns
- 3. Particles can move past each other
- 4. Particles vibrate in their position

Which statement(s) above describes the arrangements of particles in a **solid**?

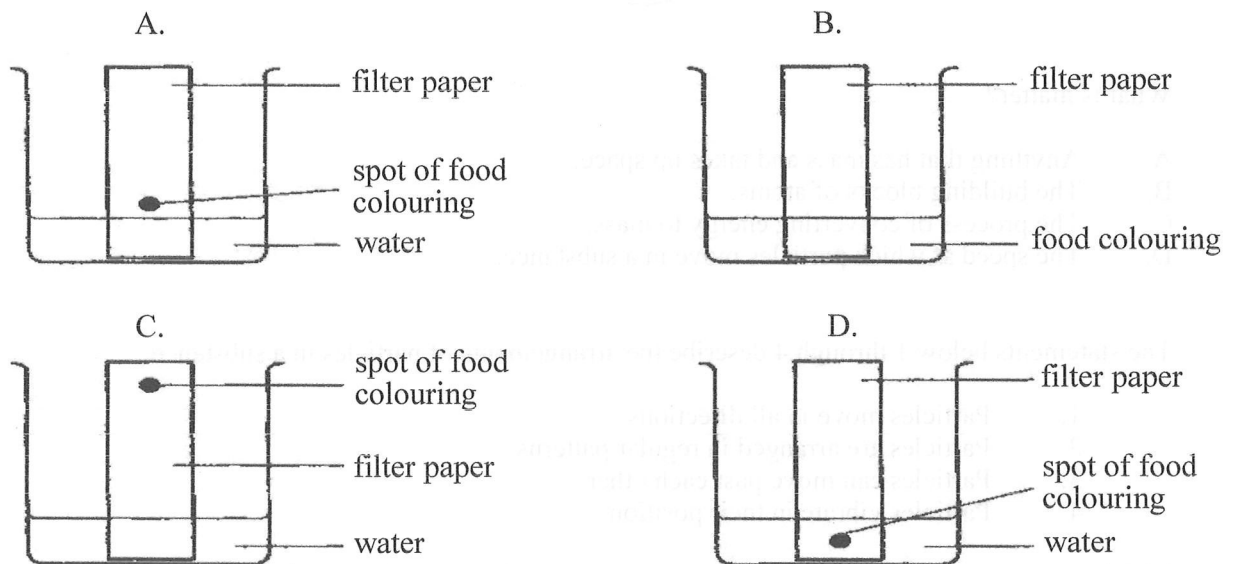
- A. 1 and 3
 - B. 1 and 4
 - C. 2 and 3
 - D. 2 and 4
8. Which of the following is a chemical property of matter?
- A. density
 - B. flammability
 - C. mass
 - D. volume
9. Which of the following can be classified as a mixture?
- A. a glass of pure water
 - B. air in the atmosphere
 - C. metal iron
 - D. sodium chloride

10. What is the result when a **SOLUTE** is dissolved in a **SOLVENT**?

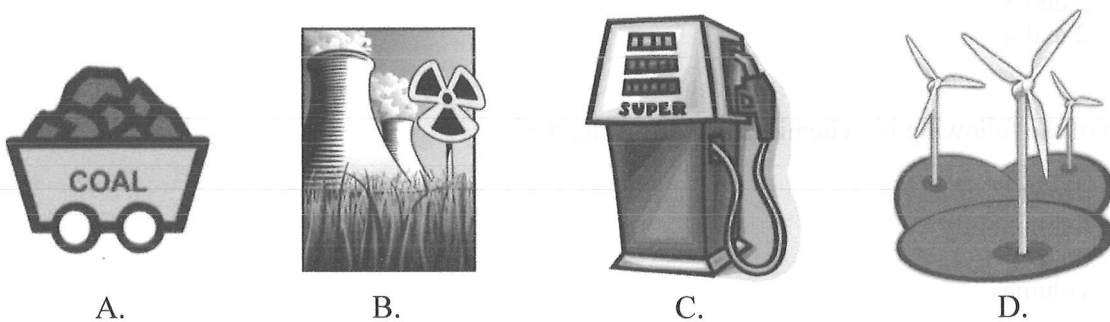
- A. compound
- B. mixture
- C. saline
- D. solution



11. Which diagram shows how a mixture of dyes in food colouring can be separated?



12. Which of the following sources of energy is renewable?



13. What is the ability to do work called?

- A. calories
- B. energy
- C. growth
- D. nutrients



14. Which force causes a pencil eraser to lose tiny pieces of rubber each time it is used?

- A. friction
- B. gravity
- C. magnetism
- D. weight

15. Which of the following substances show magnetic properties?

- A. copper
- B. iron
- C. lead
- D. zinc

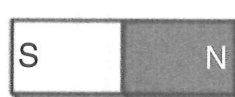
16. What will happen to the pairs of magnets in X and Y?



X

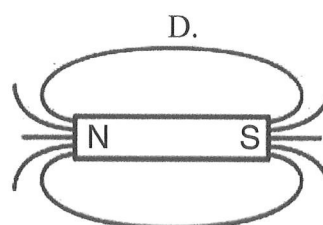
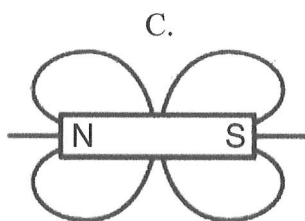
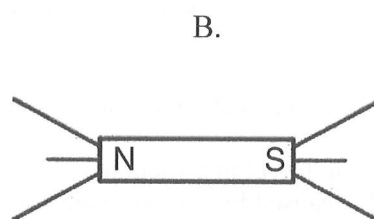
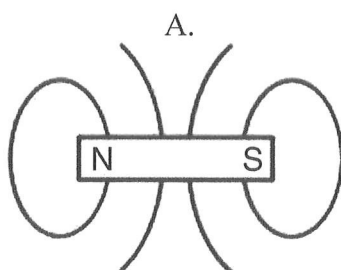


Y



- A. X will attract and Y will repel
- B. X will attract and Y will attract
- C. X will repel and Y will repel
- D. X will repel and Y will attract

17. Which diagram shows the pattern of magnetic field lines around a bar magnet?



18. What is the SI unit and symbol of force?

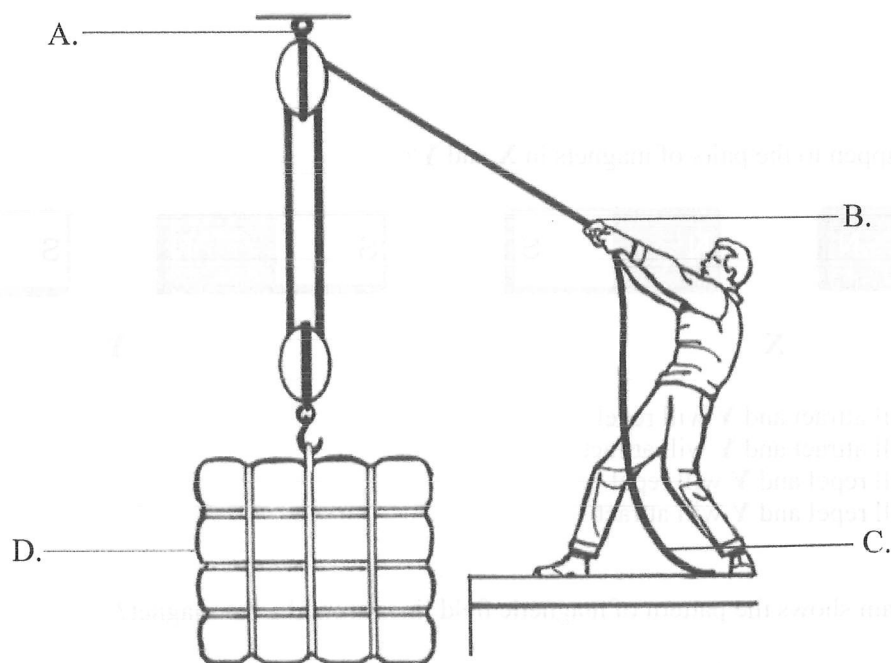
- A. Joule (J)
- B. Kilogram (kg)
- C. Newton (N)
- D. Watt (W)

19. What is the function of simple machines?

- A. complicated work
- B. do the work for you
- C. make work easier
- D. multiply work

20. The diagram shows a construction worker using a simple machine to lift an object.

Which labelled part represents the effort?



21. Which of the following statements about sound is **correct**?

- A. Sound can travel in a vacuum.
- B. Sound is caused by vibrating matter.
- C. Sound travels fastest in air.
- D. Sound waves cannot be reflected.

22. In which state of matter does sound travel fastest?

- A. gas
- B. liquid
- C. plasma
- D. solid



23. The diagram shows a pot used for cooking food.



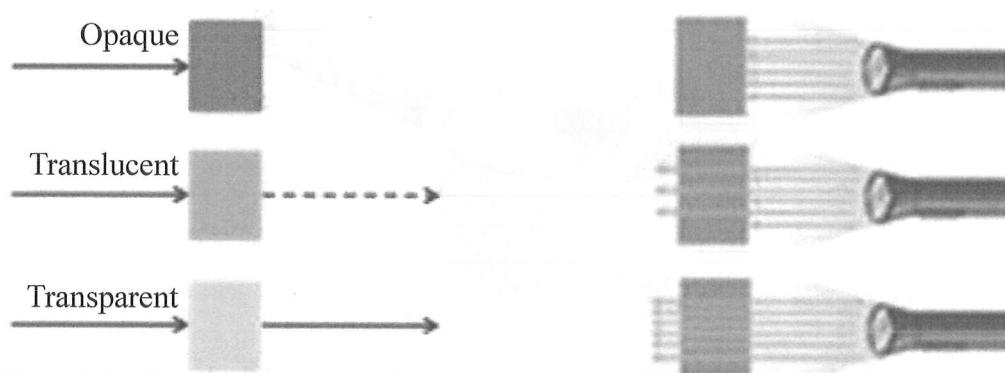
Which row correctly describes the materials used to make the base and the handle of the pot?

	Base of pot	Handle of pot
A.	good conductor	good conductor
B.	good conductor	good insulator
C.	good insulator	good conductor
D.	poor conductor	poor insulator

24. What is the most accurate description of the path that light takes when it travels?

- A. Light follows zigzag patterns.
- B. Light moves in wavy lines.
- C. Light travels in curved paths.
- D. Light travels in straight lines.

25. Which row in the table explains what happens to light as it strikes the three types of materials?



	Opaque	Translucent	Transparent
A.	Allows all light to pass through	Blocks all light rays	Scatters the light
B.	Blocks all light rays	Scatters the light	Allows all light to pass through
C.	Scatters all light rays	Creates a show	Blocks the light
D.	Scatters the light	Allows all light to pass through	Creates a clear image

26. Which of the following best describes the image formed by a plane mirror?

- A. real, inverted and reduced
- B. real, upright and the same size as object
- C. virtual, inverted and enlarged
- D. virtual, upright and the same size as object

27. Which device changes mechanical energy to electrical energy?

- A. a generator
- B. a motor
- C. a switch
- D. a transformer

28. Opposition of the flow of electricity through a conductor is known as

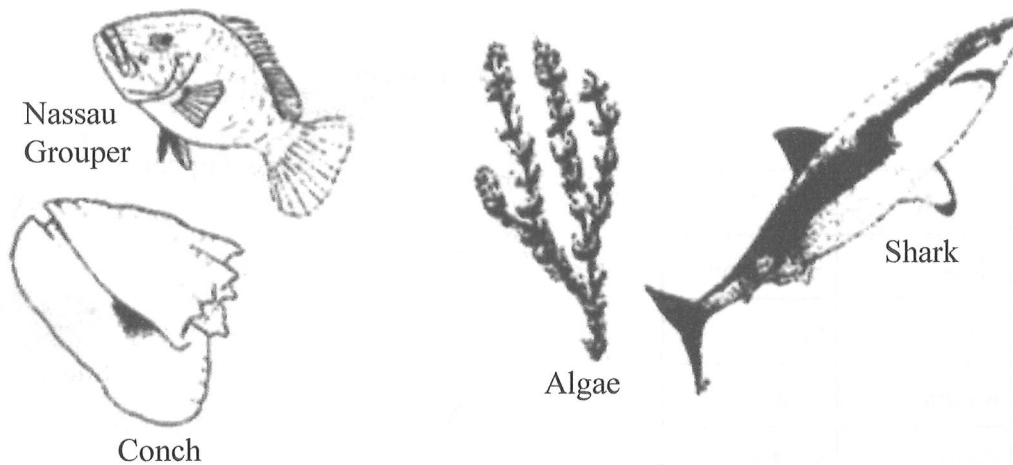
- A. amperage.
- B. magnetism.
- C. resistance.
- D. voltage.

29. What is the function of a switch in an electrical circuit?

- A. controls the amount of power in a circuit
- B. converts chemical energy into electrical energy
- C. opens or closes a circuit
- D. provide the path for electrons to flow



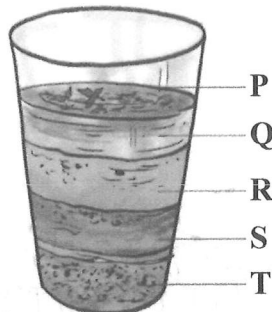
30. The organisms below are found in a Bahamian ecosystem.



Which of the following is the correct definition of an ecosystem?

- A. A collection of non-living factors that affect the climate of a region.
- B. A group of animals that share the same habitat.
- C. A group of living organisms interacting with each other and their environment.
- D. A system of energy transfer between different levels in a food chain or web.

31. A soil sample is shaken in water and allowed to settle as shown in the diagram below.



Which layer in the diagram represents humus and which layer represents gravel?

- A. P represents humus and S represents gravel
- B. P represents humus and T represents gravel
- C. T represents humus and P represents gravel
- D. T represents humus and Q represents gravel

36. Which row in the table below gives **correct** information about some of the digestive enzymes?

	ENZYME	WHERE IT WORKS	WHAT IT DOES
A.	amylase	mouth	changes fat to fatty acids
B.	lipase	large intestine	changes starch to glucose
C.	pepsin	stomach	changes proteins to peptides
D.	rennin	small intestine	changes sucrose to amino acids

37. What is the function of the **LIVER** and the **PANCREAS**?

	LIVER	PANCREAS
A.	digest food	get rid of waste
B.	get rid of waste	makes saliva
C.	produce bile	produce insulin
D.	produce insulin	produce bile

38. What are the end products of the chemical digestion of proteins?

- A. amino acids
- B. fatty acids and glycerol
- C. glucose
- D. starch

39. Which of the following is not a sexually transmitted disease?

- A. gonorrhea
- B. herpes
- C. malaria
- D. syphilis

40. Which microbe causes food to spoil?

- A. ferns
- B. mosses
- C. sponges
- D. yeast

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FOR EXAMINER'S USE ONLY	
QUESTION	MARK
1	
2	
3	
4	
5	
6	
TOTAL	

SCHOOL No.	CANDIDATE No.
INITIALS	SURNAME

MINISTRY OF EDUCATION BAHAMAS JUNIOR CERTIFICATE EXAMINATION

0047 GENERAL SCIENCE PAPER 2 STRUCTURED QUESTIONS (60 Marks)

Friday **30 May 2025** 2:15 P.M.–3:15 P.M.

INSTRUCTIONS TO CANDIDATES

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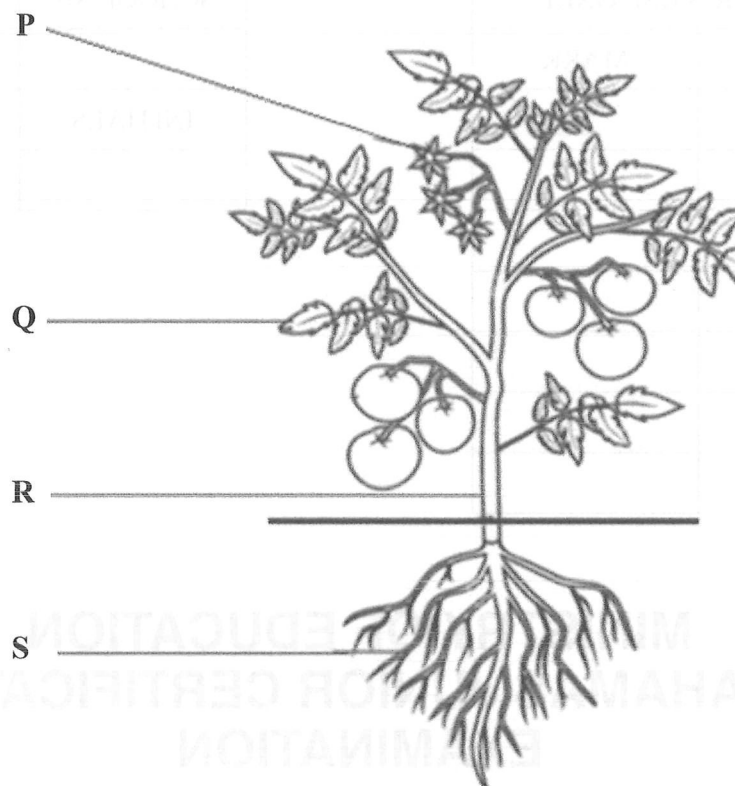
Write your school number, candidate number, surname and initials in the spaces provided at the top right hand side of this page.

Answer **ALL** questions in the spaces provided.



This question paper consists of 11 printed pages and 1 blank page.

1. The diagram shows the structures of a plant labelled P, Q, R and S.



- (a) Use the diagram to complete the table by filling in the blank spaces.

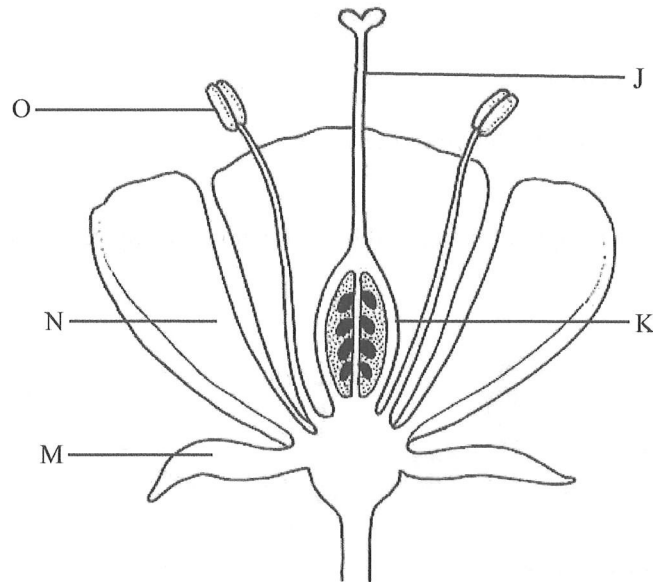
letter	Function
P	
	take in water and nutrients
R	
Q	

[4]

(b) The diagram shows the structures of a flower.

(i) On the diagram, draw a line to the stigma and label it **L**.

[1]



(ii) State **one** function of both structure **M** and **N**.

M _____

N _____

[2]

(iii) Give the letters and names of the structures in which the two types of reproductive cells are found.

letter	name

[2]

(iv) Briefly explain what happens to structure **K** after the cells are fertilised.

_____ [1]

TOTAL MARKS [10]

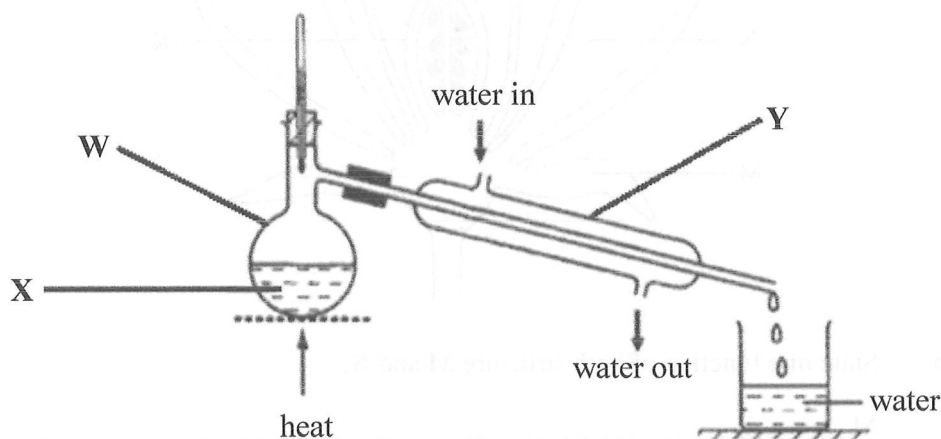
2. A student was given the task to purify different samples of water.

(a) Identify the best method of purification for each task.

- (i) Addition of an element to kill germs in ground water _____
- (ii) Kill pathogens using high temperatures _____
- (iii) Remove solid particles from the water _____

[3]

(b) The student took a sample of water and heats it using the apparatus shown.



(i) State the process shown.

[1]

(ii) Suggest a possible name for sample X.

[1]

(iii) Name the apparatus labelled W and Y.

W _____

Y _____

[2]

(iv) Explain what happens in part Y.

[2]

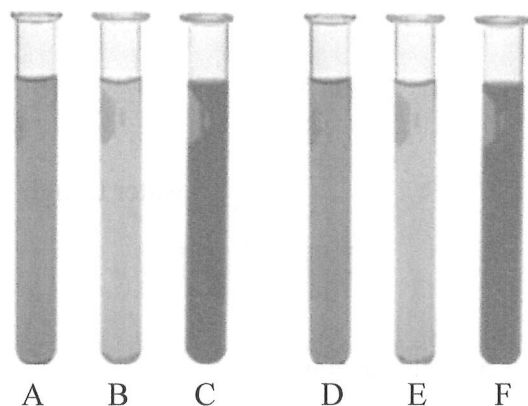
(v) State the name given to the pure water which collects in the beaker.

[1]

TOTAL MARKS [10]



3. The diagram below shows six different test tubes of different solutions. The pH of each solution is shown in the table beside the diagram.



Solution	pH
A	4
B	7
C	10
D	6
E	8
F	12

- (a) Answer the following questions:

- (i) Which test tube contains a neutral solution? _____
- (ii) Which test tubes contain an acidic solution? _____
- (iii) Which test tubes contain an alkaline solution? _____
- (iv) Which solution is most acidic? _____
- (v) Which solution is the weakest alkali? _____ [8]

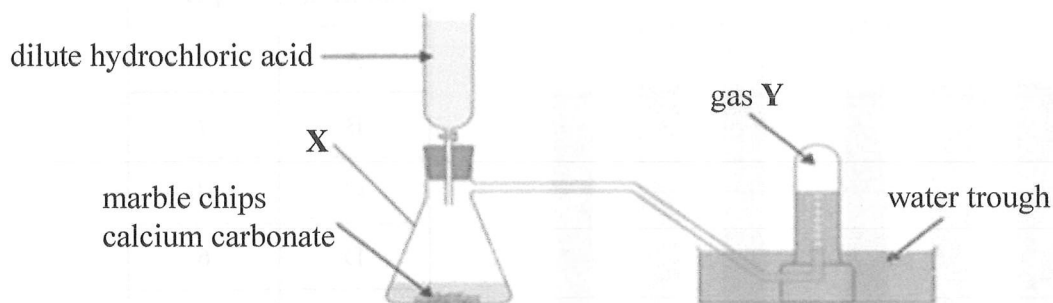
- (b) Hydrochloric acid secreted by the stomach lining has a pH of 1.

Name this type of acid and what is the chemical formula for this acid.

- (i) Type of acid: _____ [1]
- (ii) Chemical formula: _____ [1]

TOTAL MARKS [10]

4. Mr. Henderson's class was instructed to conduct a simple laboratory experiment to prepare a gas. Review the diagram they drew and answer the accompanying questions.



- (a) Name the laboratory tool labelled by the letter **X** on the diagram.
 _____ [1]
- (b) Name the gas that was being prepared in this laboratory experiment.
 _____ [1]
- (c) Give the chemical formula for gas **Y**.
 _____ [1]
- (d) List **two** uses of the gas that was prepared.
1. _____ [1]
 2. _____ [1]
- (e) Mr. Henderson wanted to be sure that his students knew which gas had been prepared.
 Describe a simple test that can be conducted to verify this gas.

 _____ [2]



- (f) Name the gas that would have an **OPPOSITE EFFECT** on an open flame from the gas that was prepared in the experiment.

Name of gas _____ [1]

List **one** property of the named gas.

Property _____ [1]

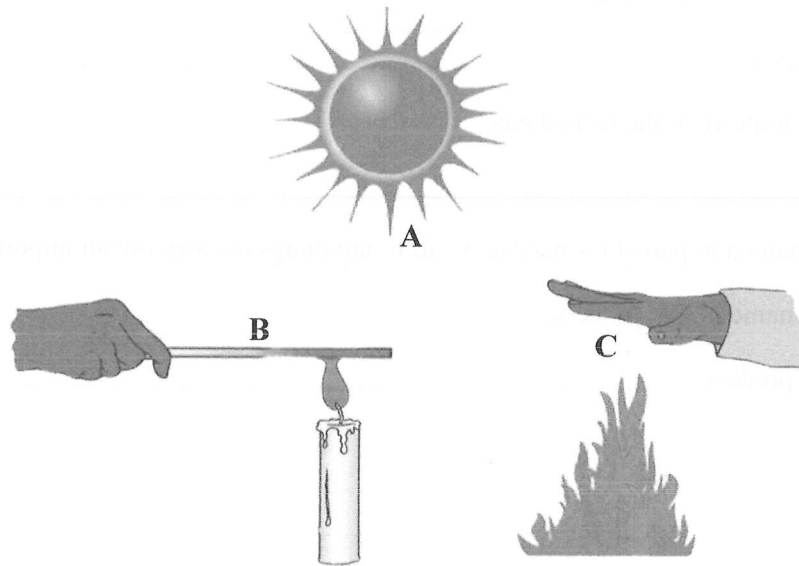
- (g) The gas named in part (f) is needed by all living things to carry out an important life function.

State the name of this process.

Name of process _____ [1]

TOTAL MARKS [10]

5. The diagram shows three methods of heat transfer.



- (a) Name the method of heat transfer at **A**, **B** and **C**.

A _____

B _____

C _____ [3]

- (b) Explain why your hand gets hot when it is placed above the flame but may not get hot when it is placed at the side of the flame.

_____ [2]

- (c) The thermometer is the instrument used to measure temperature.

- (i) Define temperature.

_____ [1]

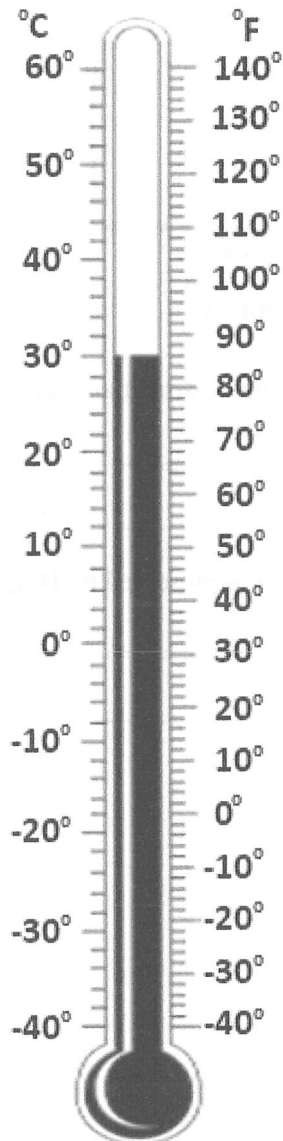


- (ii) A temperature reading is 25 degrees below the boiling point of pure water on the Celsius scale.

Calculate this temperature. (Show all working).

[2]

- (iii) Give the reading on the thermometer below in °C and °F.



_____ °C

_____ °F

[2]

TOTAL MARKS [10]

[Turn over

6. Professors Fox and Taylor guided students in assembling two electrical circuits as shown in **diagram A** and **diagram B**.

Review what they did, then answer the related questions.

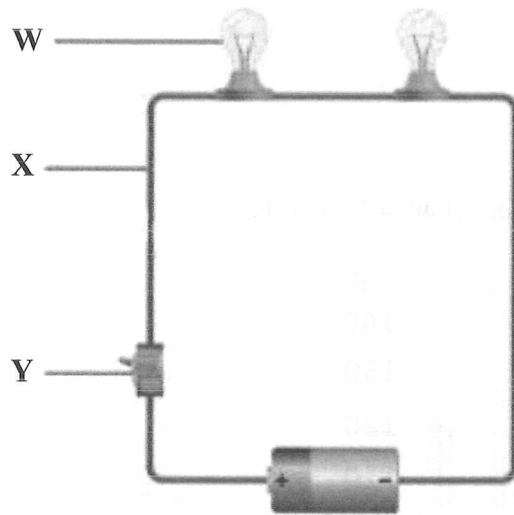


Diagram A

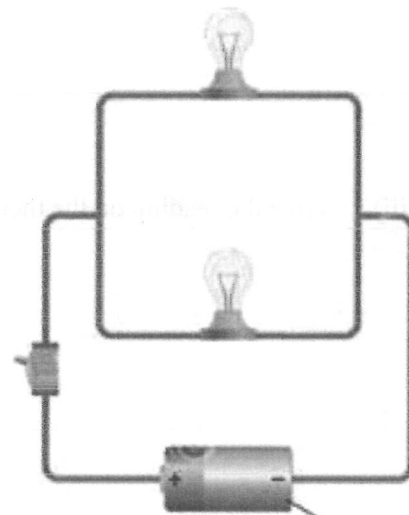


Diagram B

- (a) Give the names of the four main parts of an electrical circuit indicated by the letters **W**, **X**, **Y**, and **Z**.

W _____ **Y** _____

X _____ **Z** _____

[4]

- (b) Name the **two** types of circuit represented by **Diagram A** and **Diagram B** in the diagrams.

Diagram A _____

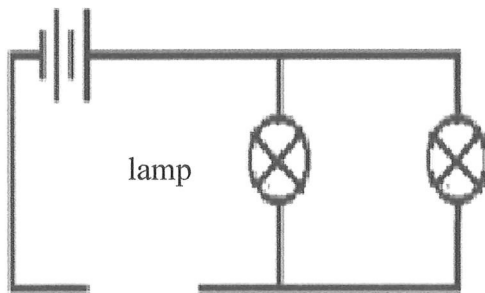
Diagram B _____ [2]



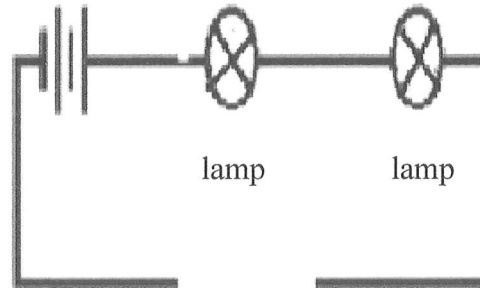
(c) Complete each circuit in the spaces provided on the diagrams by drawing:

(i) an open switch and

(ii) a fuse



open switch



fuse

[2]

(d) The following SI units symbols; **V** and **A** are used to measure two quantities of electricity.

State the SI units for each symbol below and name the instruments used to measure each.

SI unit **V** = _____ Instrument used _____

SI unit **A** = _____ Instrument used _____ [2]

TOTAL MARKS [10]

1. A circuit is shown in the diagram below. The circuit is powered by a 12 V battery.

2. The circuit is powered by a 12 V battery.

3. The circuit is powered by a 12 V battery.



(a)

(b)

(c)

(d) The battery is connected to the circuit. The battery is connected to the circuit.

Some circuit rules for each circuit below and state the instrument used to measure the

potential difference across the battery and the potential difference across the

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(e)

(f)

(g)

(h)

