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TOTAL MARKS	

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**MINISTRY OF EDUCATION
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0047 GENERAL SCIENCE

**PAPER 1 (MULTIPLE CHOICE QUESTIONS)
(40 Marks)**

Friday **29 May 2015** 1:00 P.M.–2:00 P.M.

INSTRUCTIONS TO CANDIDATES

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

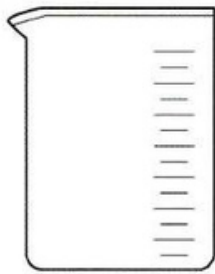
Write your school number, candidate number, surname and initials in the spaces provided at the top right hand side of this page.

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**.

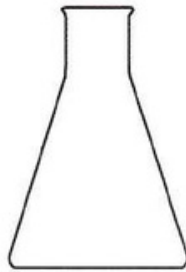
Answer **ALL** the questions in this booklet. Do any necessary rough work and calculations in your booklet.



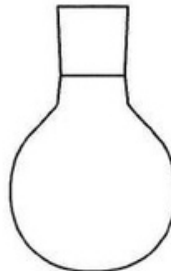
1. Which drawing shows a measuring cylinder?



A



B

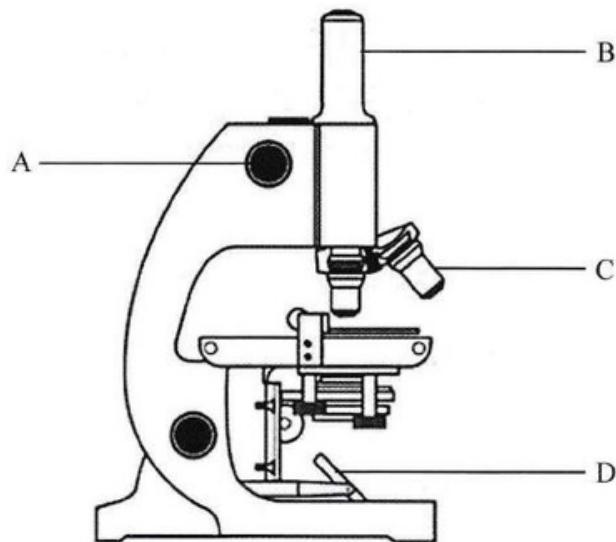


C



D

2. Which part of the microscope allows light onto the slide so that the specimen may be seen?



3. Which science is the study of plants?

- A archeology
- B biology
- C botany
- D zoology

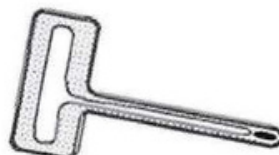
4. Which cell is the **most** important in human reproduction?



A



B



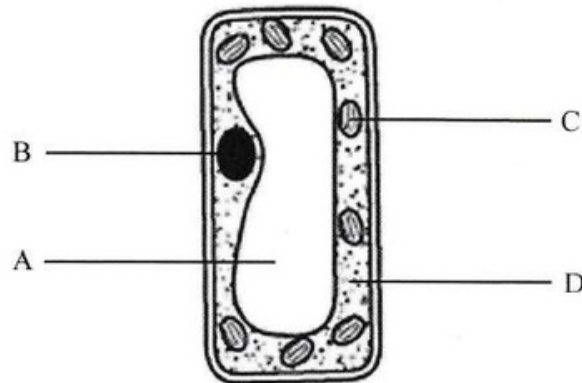
C



D

5. The diagram shows the basic structures of a cell.

Which structure contains chlorophyll?



6. How are microscopic, one-celled animals classified?
- A arthropod
 - B coelenterate
 - C echinoderm
 - D protozoan
7. Which organisms break down dead or decaying matter?
- A consumers
 - B decomposers
 - C farmers
 - D producers
8. Which of the following is **not** a form of precipitation?
- A groundwater
 - B hailstone
 - C sleet
 - D snow
9. What happens to water vapour as it moves upward into the atmosphere?
- A cools, condenses, form clouds
 - B evaporates into gas
 - C gains more heat energy
 - D reflects sunlight

10. Which instrument is used to measure wind speed?

- A anemometer
- B rain gauge
- C thermometer
- D weather vane

11. The scent of a gel air freshener spreads throughout a room.

What is this process called?

- A evaporation
- B diffusion
- C osmosis
- D transpiration

12. Which picture shows an example of a chemical change taking place?



A



B



C



D

13. Which process is taking place when dew forms?

- A condensation
- B evaporation
- C transpiration
- D precipitation

14. How does heat from the Sun travel through space?

- A conduction
- B convection
- C decomposition
- D radiation

15. Which of the following is an example of a **mild acid**?



A



B

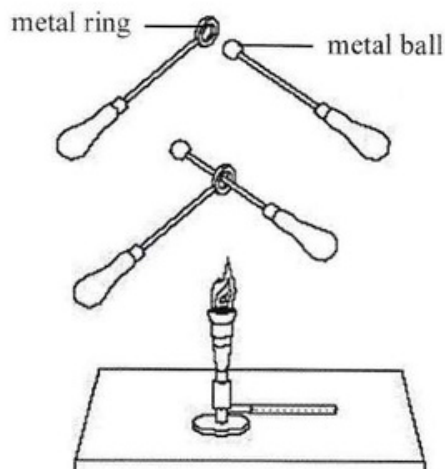


C



D

16. The ball and ring apparatus is used to demonstrate the effect of heat on metals.



Which phrase describes what happens to the metal ring after heating?

- A contracts and ball passes through
 - B expands and ball does not pass through
 - C expands and ball passes through
 - D remains the same as before heating
17. Which metal is the **best conductor** of both heat and electricity?
- A Cu
 - B Fe
 - C Pb
 - D Mg
18. Which element is a noble gas?
- A CO
 - B Ne
 - C N
 - D O
19. Which statement is true of a solution?
- A solute dissolves in solvent
 - B solvent dissolves in solute
 - C solute is always a solid
 - D solvent is always a liquid

20. What are low lying clouds that cover most of the sky called?

- A cirrus
- B cumulus
- C nimbus
- D stratus

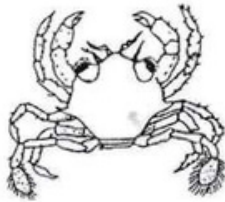
21. Which of the following does **not** cause weathering?

- A plant roots
- B soil particles
- C water
- D wind

22. Which animal is not protected in The Bahamas?



A



B

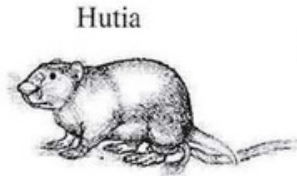


C



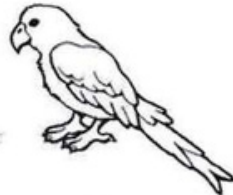
D

23. Which Bahamian endangered species is a reptile?

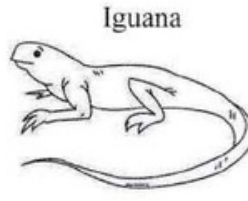


A

Abaco parrot



B



C

Flamingo



D

24. Which row describes how the human body is organised?

- | | | | | | | | | | |
|---|-------|---|---------|---|---------|---|---------|---|---------|
| A | cells | → | tissues | → | organs | → | systems | → | man |
| B | cells | → | organs | → | tissues | → | man | → | systems |
| C | man | → | systems | → | organs | → | tissues | → | cells |
| D | man | → | cells | → | tissues | → | organs | → | systems |

25. Which force causes the threads of a car's tyres to become smooth or worn?

- A friction
- B gravity
- C magnetism
- D pressure

26. A woman uses a simple machine to do work.

Which example of a simple machine is she using?

- A lever
- B incline plane
- C pulley
- D wheel and axle



27. What is the unit of electric current?

- A Ampere
- B Ohm
- C Volt
- D Watt

28. Which pair of magnets will **attract** each other?



A



B



C



D

29. The diagram shows different shapes of glass.

Which shape will cause light rays to converge?



A



B

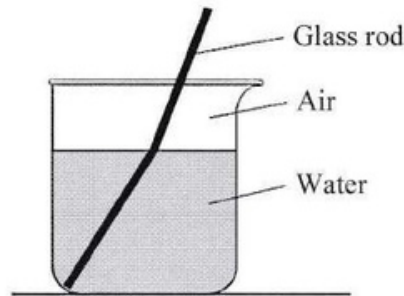


C



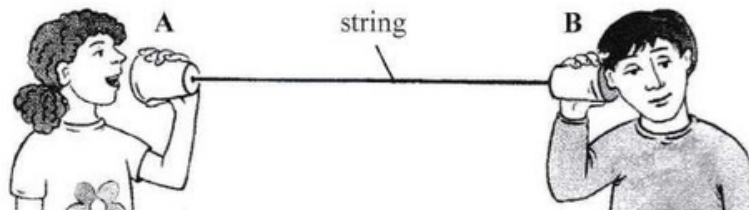
D

30. The diagram shows a glass rod in a beaker of water. The rod appears bent in the water.



What is the name of this process?

- A absorption
 - B dispersion
 - C reflection
 - D refraction
31. What is the equation for finding the speed of an object?
- A $\text{speed} = \text{distance} \div \text{time}$
 - B $\text{speed} = \text{distance} \times \text{time}$
 - C $\text{speed} = \text{distance} + \text{time}$
 - D $\text{speed} = \text{distance} - \text{time}$
32. In an experiment on sound, two students investigate how sound travels using the device shown.

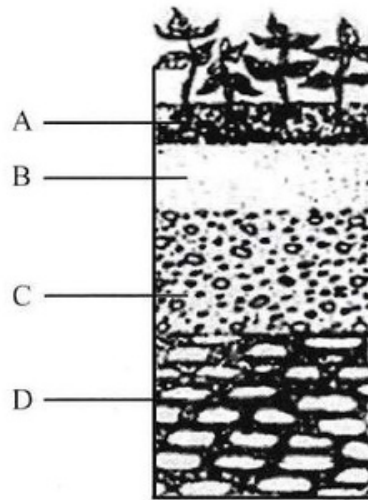


What causes the sound to travel from A to B?

- A vibrations of the boy's hand
 - B vibrations of the girl's hand
 - C vibrations of both hands
 - D vibrations of the string
33. The diagram shows the pH scale.
- Which number indicates that the substance tested is pure water?
-
- 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
- |-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
- A B C D

34. The diagram shows a soil profile.

Which layer contains the most organic material?

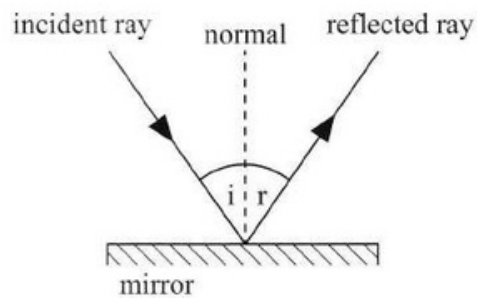


35. Which object is **not** a natural part of the solar system?

- A Earth
- B Moon
- C Satellite
- D Venus

36. The diagram shows a ray of light as it strikes a mirror.

What is the process shown?

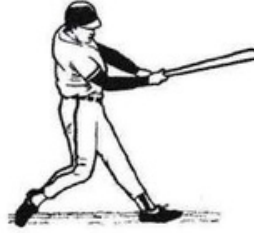


- A absorption
- B dispersion
- C reflection
- D refraction

37. A softball player hits a ball with a force of 5 N into the outfield. The ball travels a distance of 200 m.

How much **work** was done?

- A 100 J
- B 375 J
- C 750 J
- D 1 000 J



38. An athlete is running at a speed of 10 m/s. She runs a distance of 500 m.

How long did it take for the athlete to run this distance?



- A 15 s
- B 25 s
- C 50 s
- D 75 s

39. Which term means a state of complete mental, social and physical well-being?

- A disease
- B fitness
- C health
- D hygiene

40. What is the cause of AIDS?

- A bacterial infection
- B fungal infection
- C HIV viral infection
- D yeast infection

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QUESTION	MARK
1	
2	
3	
4	
5	
6	
TOTAL	

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**MINISTRY OF EDUCATION
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**0047 GENERAL SCIENCE
PAPER 2 STRUCTURED QUESTIONS
(60 Marks)**

Friday **29 May 2015** 2:15 P.M.–3:15 P.M.

INSTRUCTIONS TO CANDIDATES

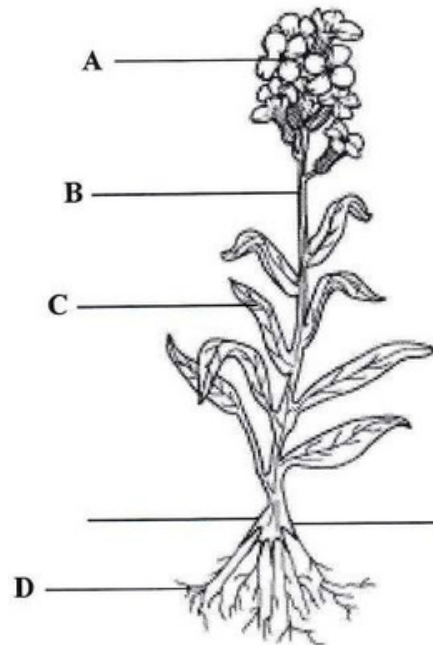
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Write your school number, candidate number, surname and initials in the spaces provided at the top right hand side of this page.

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



1. The diagram shows the structures of a plant labelled A, B, C and D.



- (a) (i) Complete the table by filling in the blank spaces. [3]

letter	function
A	
	absorbs water with dissolved minerals
C	

- (ii) There are four basic groups in the plant kingdom. Classify this plant by naming the group to which it belongs. [1]

- (iii) Identify and name **TWO** structures which could be used to classify this plant.

1. _____

2. _____ [2]

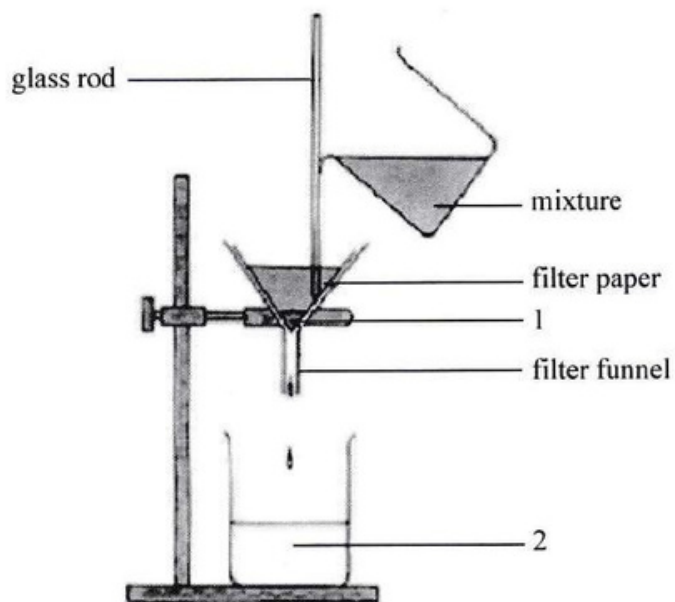
- (b) All living things are classified based on characteristics.

List and describe **TWO** characteristics of all living things.

characteristic	description
_____	_____ [2]
_____	_____ [2]

Total marks [10]

2. The diagram shows the apparatus set up for the separation of a mixture.



- (a) (i) Name the process shown in the diagram.

_____ [1]

- (ii) The mixture in the beaker **before** separation is soil and water.

Name the **TWO** parts of the mixture labelled 1 and 2, **after** separation. (DO NOT use soil or water)

1 _____

2 _____

[2]

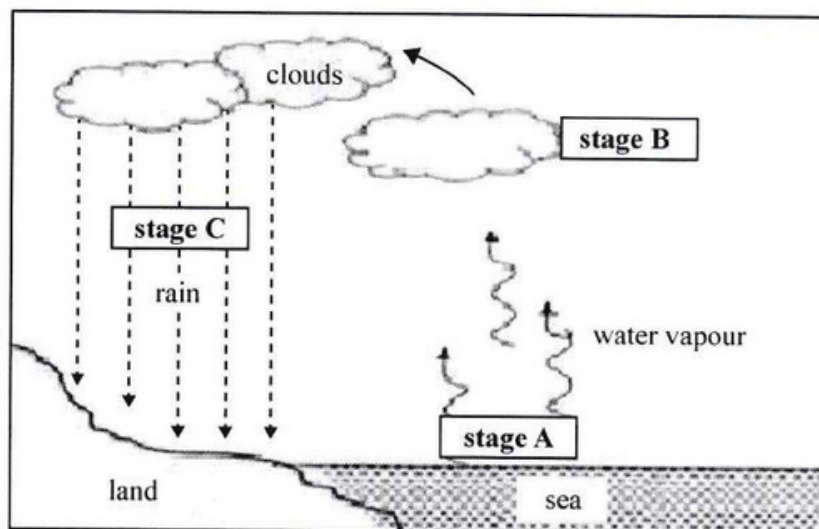
- (iii) Define a mixture.

_____ [1]

- (iv) State how the **water** can be made safe for drinking.

_____ [1]

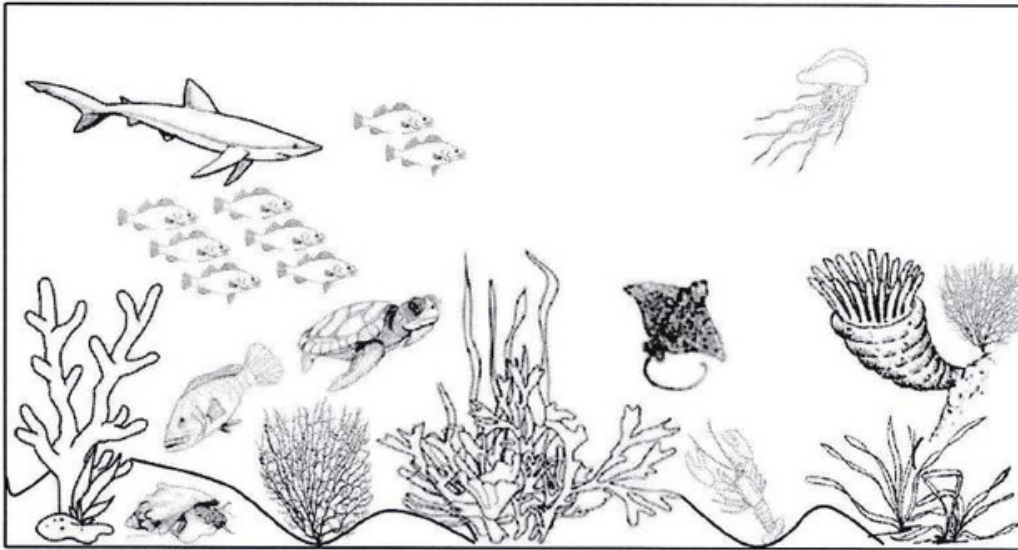
- (b) The diagram shows the stages in the water cycle.



- (i) Name the processes taking place at stages A and B.
- process A _____
- process B _____ [2]
- (ii) Water released from the clouds in the form of rain, hail, snow or sleet is an important stage in the water cycle.
- Name this process which takes place at stage C in the water cycle.
- _____ [1]
- (c) (i) Name the form of energy needed for the process at stage A.
- _____ [1]
- (ii) State the main source of this form of energy.
- _____ [1]

Total marks [10]

3. The diagram shows some of the organisms found in a coral reef ecosystem.



- (a) (i) On the diagram, use an **X** to identify a coral. [1]
- (ii) Give the name of **TWO** vertebrates and **TWO** invertebrates shown in the diagram.

invertebrates	vertebrates

[4]

- (b) (i) Define the word **ecology**.

_____ [2]

- (ii) Explain briefly why ecology is a branch of biology.

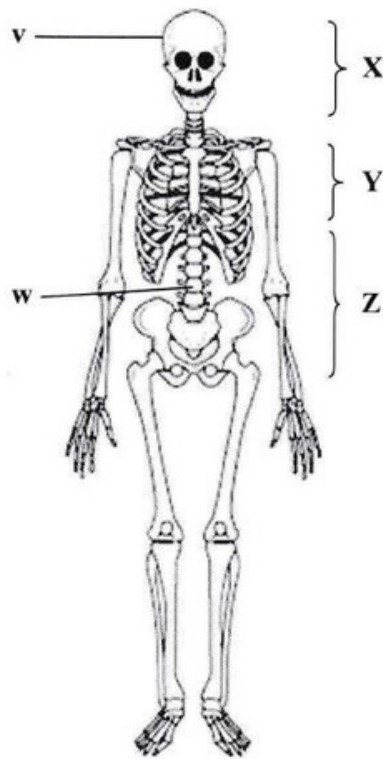
_____ [2]

- (c) Give **ONE** way scuba divers can damage coral reefs.

_____ [1]

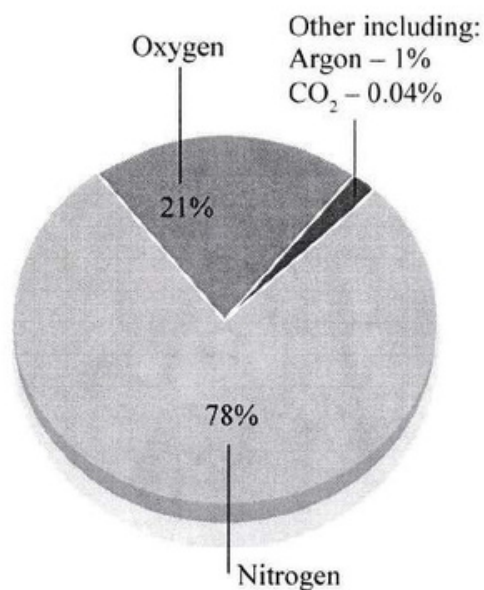
Total marks [10]

4. The diagram shows the framework of the human body and the location of three body cavities labelled X, Y and Z.



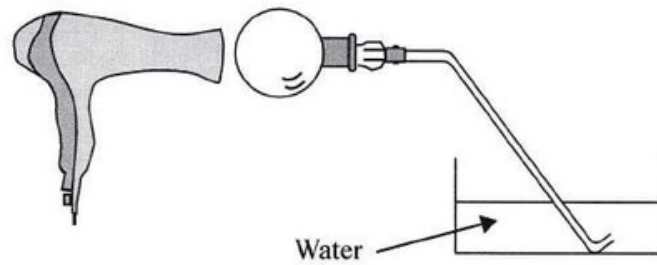
- (a) (i) Name this system and give **ONE** function of this system.
 name _____
 function _____ [2]
- (ii) Identify the specific structures labelled **v** and **w**.
v _____
w _____ [2]
- (iii) The diagram shows **THREE** major body cavities labelled X, Y and Z.
 Name **ONE** organ found in each of the cavity labelled X, Y and Z.
X _____
Y _____
Z _____ [3]
- (b) (i) Give the name of **TWO** minerals which keep bones and teeth strong and healthy.
 1. _____
 2. _____ [2]
- (ii) State the number of bones in the human body.
 _____ [1]

5. The chart shows the main composition of the Earth's air.



- (a) State the gas needed for the processes of photosynthesis and combustion.
 _____ [1]
- (b) Name the gas which
- (i) makes drinks fizzy _____
- (ii) is converted into nitrates _____ [2]
- (c) (i) Name the gas which combines with food nutrients to produce energy.
 _____ [1]
- (ii) Name the gas that is a compound and give a reason for your answer.
 gas _____ reason _____
 _____ [1]
- (d) The **condition** of the air surrounding the Earth may be hot or cold, wet or dry, calm or stormy, clear or cloudy.
- (i) Name the layer of air surrounding the earth.
 _____ [1]
- (ii) What is the name given to the **condition** of the air surrounding the Earth?
 _____ [1]

- (e) The diagram shows an experiment to investigate the effect of heat on gases.



- (i) Briefly describe what happens to the **movement** and **spacing** of the air molecules when the heat from the hair dryer heats up the air in the flask.

movement _____

spacing _____ [1]

- (ii) Briefly describe what will be observed in the water.

_____ [1]

- (iii) Write **ONE** sentence as a conclusion for this investigation.

_____ [1]

Total marks [10]

6. This question is about electricity.

- (a) (i) Define the term **current electricity**.

_____ [2]

Electricity is a convenient form of energy. Many appliances convert electricity into other useful forms of energy.

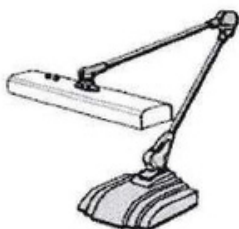
- (ii) State the main form of energy these appliances convert electrical energy into.

electrical appliance **converts electrical energy into**



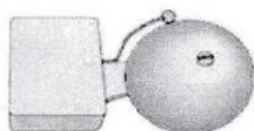
water kettle

_____ [1]



reading lamp

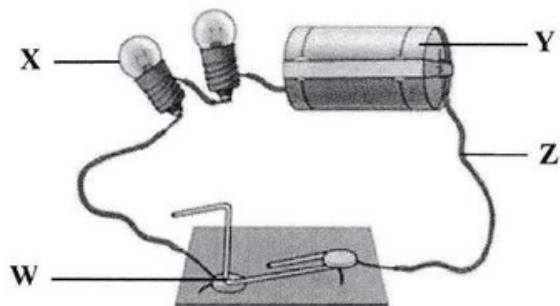
_____ [1]



door bell

_____ [1]

- (b) The diagram shows a simple electric circuit drawn without using electrical symbols.



- (i) Give the **letter** and **name** of the part which conducts electricity around the circuit.

letter	name

[1]

- (ii) The part labelled **W** is a paper clip.

Give the function of **W** in an electrical circuit.

function _____ [1]

- (iii) Complete the table by drawing the electrical symbols for the components labelled **W**, **X** and **Y**.

letter	symbol
W	
X	
Y	

[3]

Total marks [10]