

SCIENCE AND ELEMENTARY
TECHNOLOGY

PSET

13/11/2018 9AM -11AM



Rwanda Education Board

Pupil's complete index number

Province/
City District Sector School Pupil Year

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Pupil's names

Surname:

Other names:

NB: PUPIL'S INDEX NUMBER AND NAMES MUST BE WRITTEN AS THEY APPEAR ON THE REGISTRATION FORM.

PRIMARY LEAVING NATIONAL EXAMINATIONS, 2018

SCIENCE AND ELEMENTARY TECHNOLOGY

Duration: Two hours

Marks:

INSTRUCTIONS

- 1) Do not open this question paper until you are told to do so.
- 2) ***This paper consists of 12 pages and 37 questions. Before starting, check if all pages and all questions are there and are arranged in ascending order.***
- 3) This paper has **two sections: A and B.**
- 4) Questions in both sections are compulsory and must be answered as instructed.
- 5) Read each question carefully before answering it.
- 6) Answer the questions in the space provided in this question paper.
- 7) You must use a **blue** or **black** pen and a **pencil** for drawing.



SECTION A: ATTEMPT ALL QUESTIONS (50 MARKS)

1) State any one form of:

(a) energy (1mark)



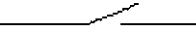
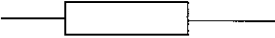
(b) renewable energy source..... (1mark)

2) Complete these sentences

(a) The area of a magnet where the magnetic force is strongest is called the magnetic (1mark)

(b) An instrument which uses magnets to show directions is known as (1mark)

3) Draw a line from each circuit symbol and link it to the electrical component it represents

Circuit symbol	Electrical Component
	Resistor
	Dry cell
	Switch
	

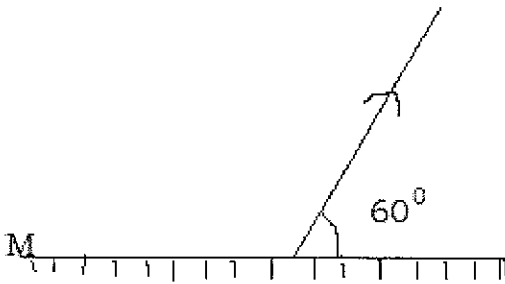
(3marks)

4) (a) Use the term refraction of light or reflection of light to answer the following question.

The phenomenon by which the incident light falling on a surface and it is then sent back into the same medium is known as

..... (1mark)

(b) The diagram below, not drawn to scale shows a reflected ray of light on a plane mirror M



(i) Use this diagram to draw the normal line to the mirror passing through the point of incidence.....(1mark)

(ii) Find the value of the angle of incidence..... (1mark)

(iii) Draw an incident ray on the same diagram..... (1mark)

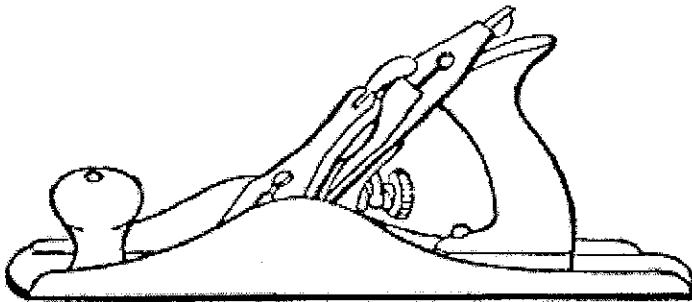
5) Name any:

(a) agricultural tool..... (1mark)

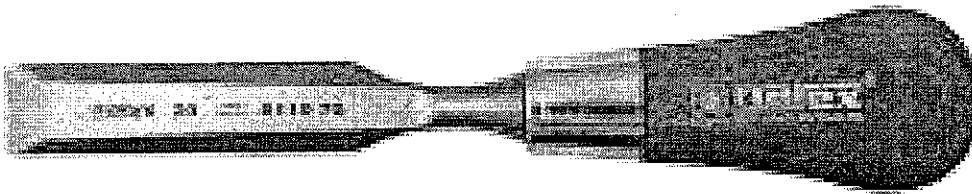
(b) danger of the misuse of agricultural tools.

..... (1mark)

6) Name the carpentry tools in (a) and (b) below:



(a)..... (1mark)



(b)(1mark)

(c) What is the “spirit level tool” used for?
.....(1mark)

7) Write any two masonry tools.

(a) (1mark)

(b)(1mark)

8) Mention any two materials used to make toys

(a)..... (1mark)

(b)..... (1mark)

9) (a) The person who repairs machines is called:

.....(1mark)

(b) The person who uses a tool known as anvil is called :

.....(1mark)

10) Use **True** or **False** to answer the following :

(a) A screw driver isn't an example of a simple machine.

..... (1mark)

(b) For a lever to be a first class lever, the fulcrum needs to be

between the load and the effort.....(1mark)

(c) A simple machine is a tool that makes the work easier.

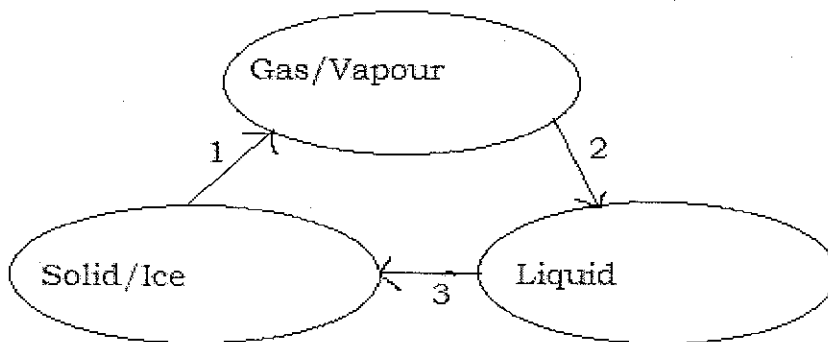
..... (1mark)

11) Calculate the relative density of each substance and complete the table given below.

(2 marks)

Material	Density in kg/m ³	Relative density
water	1 000	
gold	19 320	

12) Name the different phenomena of water changes shown in the diagram below.



1)..... **(1mark)**

2)..... **(1mark)**

3)..... **(1mark)**

13) The physical parts of a computer are called **(1mark)**

14) A small picture that represents a folder, program or other things
is called: **(1mark)**

15) If youa document from the journal, it will be
completely lost. **(1mark)**

16) The activity you are working on is automatically saved and can be
accessed from the..... **(1mark)**

17) Name three ways in which you can start using the write activity.

(a)..... (1mark)

(b)..... (1mark)

(c)..... (1mark)

18) What do the following terms refer to as used in scratch?

(a)Sprite..... (1mark)

(b)Animation (1mark)

19) List any two popular programming languages for kids.

(a)..... (1mark)

(b)..... (1mark)

20) What is the use of Paint activity?..... (1mark)

.....

21) List four functions of scratch sound editor.

a)..... (1mark)

b)..... (1mark)

c)..... (1mark)

d)..... (1mark)

22) What is a search engine? (2marks)

.....

23) Explain the uses of the following commands.

(a) Back (1mark)

(b) Left.....(1mark)

SECTION B: ANSWER ALL QUESTIONS (50 Marks)

24) (a) The characteristics for Movement is also called:

..... (1mark)

(b) Give four main reasons why animals move.

- (i) (1mark)
- (ii) (1mark)
- (iii) (1mark)
- (iv) (1mark)

25) Using an arrow (→), match each animal in A with the correct group to which it belongs in B.

A (Animal)	B (Group)
Chameleon	Mammal
Toad	Reptile
Ostrich	Birds
Bat	Amphibian

(4marks)

26) List down two similarities between plants and animals.

- (a)..... (1mark)
- (b)..... (1mark)

27) (a) Look at the crossword puzzle below and find at least four parts of a flowering plant and list them.

S	O	V	U	L	E
O	H	R	S	Q	P
V	C	O	P	R	E
A	T	O	O	D	T
R	P	T	A	T	A
Y	S	B	Z	C	L

- (i)..... (1mark)
- (ii)..... (1mark)
- (iii)..... (1mark)

(b) What would happen to plants if there were no insects?..... (1mark)

.....

28) A farmer cuts down a forest to grow potatoes.

(a) Do you agree with his action?..... **(1mark)**

(b) If Yes give reasons to support your answer.

.....
 **(2marks)**

If No, support your answer.

.....

29) Match using an arrow, the items in Column A against those in Column B. **(4marks)**

Column A	Column B
1. Sepal	(a) Female reproductive part
2. Petal	(b) Protect the inner part of the flower
3. Stamen	(c) Attract insects
4. Carpel	(d) Male reproductive parts
	(e) Receive pollen grains

30) Complete the table below. **(3marks)**

Parts of the Circulatory System	Function
1. Veins	
2. Heart	
3. Arteries	

31)(a) Name the two types of Pollination in Flowering plants.

(i) **(1mark)**

(ii) **(1mark)**

(b) Write down any two agents of Pollination.

(i)..... (1mark)

(ii) (1mark)

32) (a) Give two types of germination.

(i)..... (1mark)

(ii) (1mark)

(b) Apart from Moisture, state any other condition necessary

for seed germination..... (1mark)

33) (a) Name two natural resources in the environment that enable green plants to make their food.

(i) (1mark)

(ii)..... (1mark)

(b) What is the name of the process in (a) above? (1mark)

.....

(c) What gas is given off during this process?..... (1mark)

34) (a) Which type of blood vessels return blood to the heart?

.....(1mark)

(b) What is the function of valves in blood vessels during blood

circulation ?..... (1mark)

(c) What type of blood is carried by most blood vessels with valves?

..... (1mark)

(d) Give any one waste material carried by blood.

..... (1mark)

- 35) (a) Which organ removes urine from the body?.....(1mark)
- (b) To which body system does the organ that removes urine from the body belong?..... (1mark)
- (c) Where is urine collected before it is removed from the body?
..... (1mark)
- 36) (a) Name the germ that causes HIV/AIDS..... (1mark)
- (b) Apart from having sex with an infected person, write down any other way in which one can get the germ that causes HIV/AIDS.
.....
..... (1mark)
- (c) State the name of the insect that transmits malaria parasite from one person to another..... (1mark)
- 37) Which part of the body is affected by each of the following diseases?
- (a) Bilharzia.....(1mark)
- (b) Scabies.....(1mark)
- (c) Trachoma(1mark)
- (d) AIDS.....(1mark)

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