

Science and
Elementary Technology

PSET

05/11/2019
9:00 AM – 11:00 AM



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, 2019

SCIENCE AND ELEMENTARY TECHNOLOGY

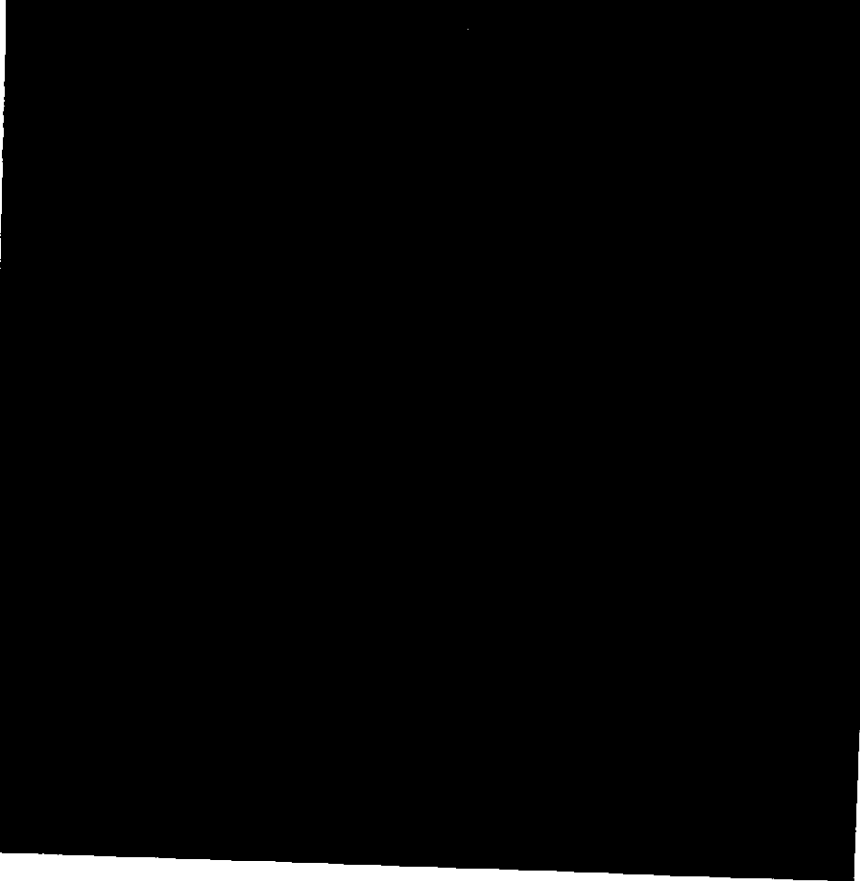
DURATION: TWO HOURS

MARKS:

/100

INSTRUCTIONS

- 1) Do not open this question paper until you are told to do so.
- 2) ***This paper consists of 12 pages and 49 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) a) Use **True** if the statement is correct and **False** if it is wrong to answer the sub questions below:

(i) An object that blocks light from passing through it is opaque **(1 mark)**

(ii) When a light ray is incident on a plane mirror, it refracts. **(1 mark)**

b) Describe any one property of the image of your face in a plane mirror.

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

2) State any two uses of solar energy.

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

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

3) Use the appropriate tool from the following list : *Trowel, wood chisel, open, ended spanner, tongs, plane*; to answer the questions below:

a) Name any one carpentry tool.
..... **(1 mark)**

b) Identify one mechanics tool and one blacksmith tool.

Mechanics tool **(1 mark)**

Blacksmith tool **(1 mark)**

4) Give any two potential dangers that repair and maintenance workers of masonry, carpentry, agricultural, mechanics and blacksmith tools usually face.

a) (1mark)

b) (1mark)

5) a) Name any one agricultural tool.

..... (1mark)

b) Two reasons why farmers put oil or grease on metal parts of agricultural tools are :

(i) (1mark)

(ii) (1 mark)

6) Complete the statements below on magnetism.

a) is the region present on a magnet where force of attraction or repulsion acts. (1 mark)

b) The magnetic poles of a magnet are pole and pole. (2 marks)

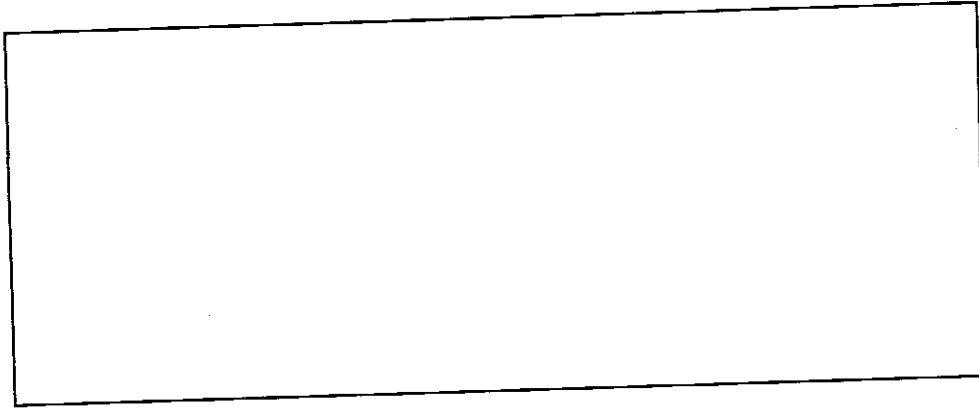
7) Describe the characteristics of a liquid in terms of shape and volume.

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

8) a) Draw an object that you can make using clay

(2marks)

(i) Drawing



(ii) The name of the object drawn is:

(1mark)

b) Propose one way that you can use to effectively maintain utility and learning objects produced by you and your classmates/colleagues

(1mark)

9) The volume of a certain sample of gold is 2 cm^3 and its density is 19.32 g/cm^3

a) (i) Write the formula for calculating the mass of gold.

(1mark)

(ii) Calculate the mass of gold and write its units.

(1mark)

b) The density of water is 1 g/cm^3 .

(i) Does this sample of gold sink or float if it is submerged into water?

(1mark)

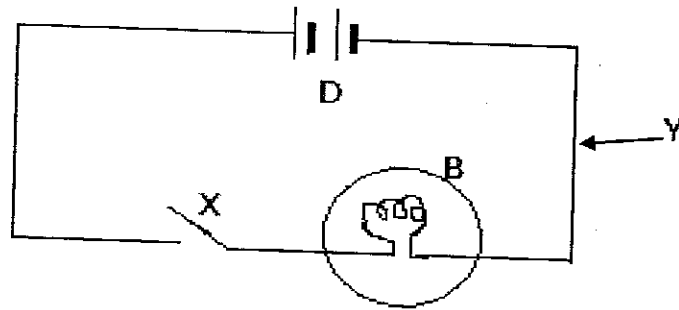
(ii) Justify your answer

.....

.....

(1 mark)

10) Study the diagram in the following figure then answer questions that follow



a) Name the component labelled **B**

.....

(1 mark)

b) (i) What will happen to **B** if **X** is closed?

.....

(1 mark)

(ii) Give a reason for your answer in 10)b(i) above.

.....

.....

(1 mark)

c) What will happen to **B** if **x** is closed and the element **D** is replaced by another element like **B**?

.....

.....

.....

(1 mark)

11) (i) Choose the best answer from the following four choices:

Saving data for later use are

(1 mark)

- A. Input
- B. Distribution
- C. Storage
- D. Share

(ii) In order to save an existing document with a different name you need to use the..... (1mark)

12) Choose the best answer from the following four choices: (1mark)

www.rra.gov.rwa is an example of

- A) Website
- B) Email
- C) Xo Computer
- D) Laptop

For questions 13 to question 16, answer True or False

13) When using the write activity, the typed text is automatically saved when you close (1 mark)

14) You can find any kind of information using search engine..... (1 mark)

15) CDs as well as DVDs are optical storage devices..... (1 mark)

16) Scratch and turtle art are two popular programming languages for kids..... (1 mark)

17) is giving of objects human characteristics like movement, sound, saying etc. (1 mark)

18)is usually used to backup data. (1 mark)

- a) External hard disk
- b) Memory stick
- c) Memory card
- d) None of these

19) State any three geometrical shapes used in graphics. (3marks)

.....
.....

20) Explain the features of arithmetic operation. (2marks)

.....
.....
.....

- 21) tool is used for painting and editing image colors. (2marks)
- 22) Name any three categories of blocks used in scratch. (3marks)
.....
.....
- 23) Move the turtle forward with the number of pixels entered. (1mark)

SECTION B: Attempt all questions

(50 marks)

For questions 24 to 32, choose the most correct answer by putting a tick (✓).

- 24) Which of the following animals gives birth? (1 mark)
- A. Bat
 - B. Fish
 - C. Toad
 - D. Spiny ant-eater
- 25) Among the following foods, which one can be considered as a balanced diet? (1 mark)
- A. Chips
 - B. Milk
 - C. Fried chicken
 - D. Green vegetables
- 26) Which of the following is **NOT** a condition necessary for germination? (1 mark)
- A. Warmth
 - B. Oxygen
 - C. Moisture
 - D. Soil
- 27) Which of the following is the most reason why oxygen is used in seed germination? (1 mark)
- A. It supports life
 - B. It is easily available
 - C. It supports burning
 - D. It is not poisonous

28) Which one of the following is found in the Dermis part of the skin? **(1 mark)**

- A. Urine
- B. Ureter
- C. Epidermis
- D. Sweat gland.

29) Which one of the following represents the correct order of foetal development? **(1 mark)**

- A. Embryo → Zygote → Foetus → Baby
- B. Foetus → Embryo → Zygote → Baby
- C. Zygote → Embryo → Foetus → Baby
- D. Zygote → Foetus → Embryo → Baby

30) Which type of erosion occurs mainly on steep slopes? **(1 mark)**

- A. Gulley erosion
- B. Sheet erosion
- C. Rill erosion
- D. Splash erosion

31) Which of the following vitamins is responsible for good eye sight? **(1 mark)**

- A. Vitamin D
- B. Vitamin C
- C. Vitamin B
- D. Vitamin A

32) Our body needs to be repaired after injuries. The best foods to build and repair the body are: **(1 mark)**

- A. Millet, oranges, termites
- B. Peas, Cassava, groundnuts
- C. Fish, beans, Green vegetables
- D. Wheat, Milk, Maize.

- 33) Which of the following is a fact about HIV and AIDS? (1 mark)
- A. People living with HIV and AIDS are going to die soon.
 - B. HIV and AIDS is a curse from God.
 - C. HIV is got through sexual intercourse.
 - D. People living with HIV and AIDS are advised to eat small amounts of food at a time.

34) and are not part of the alimentary canal but they play a role in the digestion of food (2 marks)

35) a) The fusion of male and female reproductive cells forms (1 mark)

b) List down at least two functions of the placenta. (2 marks)

(i).....

(ii).....

36) a) The reproductive part of a plant is the (1 mark)

b) In a flower, the male sex cells are known as while the female sex cells are known as (2 marks)

From Question 37 to 41, answer **TRUE** or **FALSE**

37) Proteins are for growth and repair; they should therefore be given to children. (1 mark)

38) Glucose is used to provide energy during exercise; it should not be given to young children..... (1 mark)

39) The circulatory system consists of the heart and blood vessels. (1 mark)

40) HIV can be transmitted through blood when people share sharp instruments. (1 mark)

41) Mosquitoes cause malaria..... (1 mark)

42) List four major functions of the skeleton.

(4 marks)

- (a)
- (b)
- (c)
- (d)

43) Give five uses of water.

(5 marks)

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44) Mention 5 ways in which plants are important to humans.

(5 marks)

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.....
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45) a) Pollution is:

(1 mark)

.....
.....

b) What are common sources of air pollution?

(2 marks)

.....
.....

46) Give at least two reasons why plants and animals are classified as living things.

(2 marks)

- (i).....
- (ii).....

47) Match the items in list **A** with their functions in list **B**.

(4 marks)

List A	List B
a. Red cells	1. Stops bleeding when the skin is cut
b. Arteries	2. Carry oxygen around the body
c. Valves	3. Carry blood away from the body
d. Platelets	4. Prevent back flow of blood in veins

48) Why is immunization of children carried out free of charge in

Rwanda?

(1 mark)

.....

49) Why should young girls avoid getting pregnant?

(3 marks)

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