

**Science and Elementary
Technology**

PSET

13/07/2021

09: 00-11: 00 AM



NESA NATIONAL EXAMINATION AND
SCHOOL INSPECTION
AUTHORITY

Pupil's complete index number

Province /City	District	Sector	School	Level	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, 2021
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 40 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 on 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) What kind of toy or learning material can you make from the following materials?

a) paper

..... (1mark)

b) clay

.....(1mark)

2) a) State any one material you use in the classroom to support your learning process.

..... (1mark)

b) How do you take care of your learning materials?

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

3) Name the agricultural tool described below:

a) It is a plastic container with backpacks and spray guns.

..... (1mark)

b) We use this tool for collecting fallen leaves and levelling the soil

..... (1mark)

4) Describe the use of each of the following tools:

a) Spanner

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

b) Hand saw

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

c) Bellow

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

5) a) Identify:

(i) Any one natural material used in construction site.

..... (1mark)

(ii) Any one masonry tool used in construction site.

.....(1mark)

b) Explain how the security measures can be applied in construction site.

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

6) Use appropriate terms to complete the following statements:

a) The angle of incidence isto the angle
of reflection when a ray of light is reflected by a plane mirror. (1mark)

b) The ray of light going from glass to air
..... away from the normal. (1mark)

c).....material is a material which allows
light to completely pass through it. (1mark)

7) a) Why is electricity important?

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

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

b) Prove that electricity may be dangerous when it is mishandled.

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

8) a) Provide any one non-metallic material.

..... (1mark)

b) Why is cooking utensil made of metal?

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

9) Use **true** or **false** to answer the sub questions below:

a) A hoe is second class lever.

.....(1mark)

b) A simple machine enables people to do work with less effort and a greater speed.

.....(1mark)

c) People should always be careful when using simple machines.

.....(1mark)

10) a) State any one advantage of using renewable energy.

.....(1mark)

b) What energy change takes place when a piece of wood is burned?

.....

..... (1 mark)

11) a) What happens when two unlike poles of two different magnets come closer to each other?

.....

..... (1mark)

b) What happens to the magnetic force between two magnets when the distance between two unlike poles increases?

Choose from decreases, increases or remains the same.

..... (1mark)

12) Read the statement below carefully and answer the questions that follow:

At 100°C and at standard pressure, water changes state from liquid water to gas (water vapour). At 0°C and below this temperature, liquid water becomes solid water called ice.

Questions.

a) (i) What is the boiling point of water?

..... (1mark)

(ii) Determine the melting point of ice.

.....(1mark)

b) Name the change phase from liquid water to ice.

..... (1mark)

13) Communication is a process of sending and receiving information from one person to another. Give any 4 means of communication used in Rwanda.

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

(4 marks)

14) Paint activity is used for**(1 mark)**

- a) Typing letters
- b) Painting
- c) Browsing
- d) Drawing, colour and editing
- e) None of these.

15) The process of writing a computer program is called.....

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

16) What do you understand by the term “ email”? **(2 marks)**

.....
.....

17)State whether the following statements are **True** or **False**.

(4 marks)

- a) Storage devices are only external:
- b) A user can make changes in ROM:
- c) CDs as well as DVDs are optical storage devices.....
- d) We can share files with others in the neighbourhood.

.....

18) What is a folder? **(2 marks)**

.....
.....

19) Give any 2 examples of general search engine. **(2 marks)**

.....
.....

20) Name any two popular programming languages for children. **(2 marks)**

.....
.....

21) Define the term Sugar interface. **(2 marks)**

.....
.....

SECTION B: Attempt all questions. (50 marks)

22) Water has been collected from a well.
Give three methods of making this water safe for drinking. **(3 marks)**

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

23) Name any two diseases associated with water pollution. **(2 marks)**

.....
.....

24) Which part of the Eye is responsible for the following:
(i) Formation of image. **(1 mark)**

.....

(ii) Carrying image from the eye to the brain. **(1 mark)**

.....

(iii) Changing the shape of the Lens. **(1 mark)**

.....

25) Give examples of each of the following bones.

a) Long bones.

(1 mark)

.....

b) Short bones.

(1 mark)

.....

c) Flat bones.

(1 mark)

.....

26) a) What are the major differences between sexual and asexual reproduction?

(2 marks)

.....

.....

b) What are secondary sexual characteristics for boys and girls?

Boys.....

.....

Girls.....

..... (2 marks)

27) a) Give any one habit that may lead a person to catch AIDS.

(1 mark)

.....

b) Suggest the best way of controlling the spread of AIDS.

(1 mark)

.....

28) a) Give any three characteristics of living things.

(3marks)

.....

b) A cow and a bat are classified as mammals. To which class of animals do the Tortoise and Lizard belong?

(1 mark)

.....

29) How are plants different from animals in the way they get their food?

(2 marks)

.....

.....

30) Give two ways of controlling the spread of the following diseases without using drugs.

(i) AIDS **(1 mark)**
.....

(ii) Malaria **(1 mark)**
.....

31) Give the function (use) of each of the following:

(i) White blood cells. **(1 mark)**
.....

(ii) Red blood cells. **(1 mark)**
.....

(iii) Platelets. **(1 mark)**
.....

32) Apart from having bright colour, state any other one characteristic of insect pollinated flowers. **(1 mark)**
.....

33) Apart from movement, give any other Two functions of human skeleton. **(2 marks)**
.....
.....

34) a) Where in the digestive system do the following take place?

(i) Absorption of digested food. **(1 mark)**
.....

(ii) Absorption of water. **(1 mark)**
.....

b) What are the end products of digestion of:

(i) Starch **(1 mark)**
.....

(ii) Proteins **(1 mark)**
.....

(iii) Fats **(1 mark)**
.....

35) Give the function of the following plant parts:

(i) Roots

(2 marks)

.....

(ii) Stem

(2 marks)

.....

36) Complete the table below that compares Insect pollinated and Wind pollinated flowers.

Insect Pollinated Flower	Wind Pollinated Flower
(i)	
(ii)	
(iii)	
(iv)	

(4 marks)

37) a) Give the general name of blood vessels which carry blood away from the heart to various parts of the body.

(1 mark)

.....

b) Why does blood go to the kidney during circulation?

(1 mark)

.....

38) Suggest any Two problems of early pregnancy to a school girl below 18 years.

(2 marks)

.....

.....

39) Apart from the skin and lungs, name any other excretory organ.

(1 mark)

.....

40) Give any one reason why people like brick makers need to feed on carbohydrates.

(1 mark)

.....

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