

**Science and Elementary
Technology
PSET**
09/07/2024
09: 00 AM - 11: 00 AM



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, 2023-2024
SCIENCE AND ELEMENTARY TECHNOLOGY

Duration: Two hours

Marks:

/100

Instructions to candidates:

- 1) Do not open this question paper until you are told to do so.
- 2) This paper has **one section**.
- 3) All questions are compulsory and must be answered as instructed.
- 4) Read each question carefully before answering it.
- 5) Answer the questions in the space provided in this question paper.
- 6) You must use a **blue** or **black** pen and a pencil for drawing.

Attempt ALL questions.

1) Name any two agricultural cutting tools. **(2 marks)**

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2) Give any two advantages of using simple machines in our daily life. **(2 marks)**

.....

3) Explain two reasons why agricultural tools should be kept in a dry place. **(2 marks)**

.....

4) Match the following tools with their uses **(2 marks)**

Tools	Uses
a) Clamp	i) blow air into fire
b) Anvil	ii) sharpening edge of metals
c) File	ii) hold metal while being cut
d) Bellows	iv) Where red hot metals are bent and shaped

5) Classify the following masonry tools according to their usage: (3 marks)

Spade, Plumb line, trowel, spirit level, steel float, mortar mixer

Usage	Tools
Smoothing tools
Leveling tools
Mixing tools

6) Name any one material that is used to make toys and learning objects. **(1 mark)**

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7) Mention any two materials used while making a mat. **(2 marks)**

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8) State whether the following statements are **True** or **False**. **(2 marks)**

a) You can make a toy watch from a manila paper

by One can maintain a doll by keeping it in a wet place.....

9) As a learner who has been taught the importance of utility objects made of clay soil, suggest two benefits of such materials to people. **(2 marks)**

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10) Select the best answer: Solid water (ice) changes into liquid by: **(1 mark)**

a) wind

b) heat

c) cold

d) rain

11) Complete each of the following sentences with an appropriate word from those given in the brackets. **(3 marks)**

i) The air is a mixture of..... (liquids, gases)

ii) The main greenhouse gas is..... (oxygen, carbon dioxide)

iii) Air pollution may cause tuberculosis..... (tuberculosis, diabetes)

12) State whether the following statements are **True** or **False**. **(2 marks)**

a) Polio is a water bone disease.....

b) Rain is the main source of water.....

13) Why is water considered to be very important in our daily life? Give two reasons. **(2 marks)**

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14) Match the following Gases with their uses: (2 marks)

Gas	Use
Argon	Combustion
Carbon dioxide	Making fertilizers
Oxygen	Cooling process
Nitrogen	Lights bulb

15) Select components of soil from the following: (2 marks)

air, leaves, humus, manure, water

.....

16) Give two examples of recyclable wastes. (2 marks)

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17) Complete the table below with types of waste and their examples (2 marks)

Types of waste	Example
.....	Maize remains
Electronic waste
.....	Broken bricks, sheet remains
Biomedical waste

18) Farmers are encouraged to make terraces and plant trees in order: (1 mark)

- a) to make the country beautiful.
- b) to develop an area
- c) to reduce carbon dioxide.
- d) to prevent soil erosion.

19) State whether each of the following statements is **True** or **False**. (2 marks)

- a) A search engine is a software system where learners can search any kind of information:
- b) You can search for information without internet connection:

20) Explain the two advantages of using e-mail in real life. (2 marks)

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21) Match the following parts of XO Laptop with their use. (2 marks)

Part	Use
a) Camera	i) For displaying work
b) Keyboard	ii) For switching on the computer.
c) Screen	iii) For taking pictures and videos.
d) Power button	iv) For typing letters and numbers,

22) Mention any two uses of a mobile phone. (2 marks)

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23) What are the steps followed in creating a folder? (2 marks)

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24) ICT contributes a lot to individual life as well as community lives. Give any two positive contributions. (2 marks)

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25) Suggest one reason why farmers should feed well their chickens? (1 mark)

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26) Mention any two reasons why we keep cattle in our country. (2 marks)

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27) The Ministry of Health advises people to feed on at least one egg per week in order to fight against nutritional deficiency diseases. Do you agree with this statement or not? Justify your answer. **(3 marks)**




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28) Identify the class of each of the animals in the table below. **(3 marks)**

Tilapia	Toad	Bat
		
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29) Give two examples of domestic animals which are vertebrates. **(2 marks)**

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30) Our Government administered the plantation of trees in all areas of Rwanda. Support this policy by giving two reasons. **(2 marks)**

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31) Match the following elements: **(2 marks)**

Parts	Function
Stamen	Female part of flower
Ovary	Produces ovules
Pedicel	Male part of flower
Carpel/pistil	Attaches flower to the branch

32) State any two uses of leaves to animals? **(2 marks)**

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33) Choose the best answer. **(2 marks)**

After fertilization, the ovary develops into.....(seeds, fruits)

Asexual reproduction doesn't involve..... (ovary, gametes)

34) State any two importance of blood in the human body. **(2 marks)**

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35) Identify any two consequences of smoking **(2 marks)**

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36) How do we call a special stage in human growth/development at which the first ejaculation occurs? **(1 mark)**

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37) State whether the following statements are **True** or **False** **(2 marks)**

i) The virus causing AIDS can be transmitted through sexual intercourse.....

ii) Mosquitoes transmit the virus that causes HIV/AIDS.....

38) Apart from tasting, mention other two functions of the tongue. **(2 marks)**

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39) Complete the following sentences: **(2 marks)**

a) The longest bone of the human body is.....

b) The place where two bones meet is called a.....

40) Match the following elements with their functions.

(3 marks)

Type of muscles	Function
a) Voluntary muscles	i) Automatic movements
b) Cardiac muscles	ii) Controlled movements
c) Involuntary muscles/	iii) Heart beats

41) How is family planning useful to our country?

(2 marks)

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42) Complete the sentences below with the correct words.

(2 marks)

a) The sacs that keep air are called.....

b) The poison gas found in tobacco is

43) Establish the differences between white blood cells and red blood cells.

(2 marks)

White blood cells	Red blood cells

44) Match the types of teeth with their functions.

(2 marks)

Teeth	Functions
a) Canines	i) Cutting food
b) Molars	ii) Chewing food
c) Incisors	iii) Tearing food
d) Pre-molars	iv) Grinding food

45) Draw two magnets which prove that two opposite sides attract each other. (2 marks)

46) How does electricity help in the conservation of the environment?

(2 marks)

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47) Match the following tools with their uses:

(2 marks)

Tools	Use
a) Tester	i) cuts and holds wires
b) Rubber gloves	ii) prevents electric shock
c) Pliers	iii) checks the flow of electricity
d) Screw driver	iv) drives screws

48) Identify the states of matter from the following list: ice, liquid, water vapors, solid, stone, smoke, gas, juice. (3 marks)

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49) Mention any two sources of renewable energy. (2 marks)

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50) Describe any one property of light shown by the image of your face in a plane mirror (1 mark)

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-END-

MARKING GUIDES

Attempt ALL questions.

1) Name any two agricultural cutting tools. (2 marks)

- a) **Panga**
- b) **Shovel**

2) Give any two advantages of using simple machines in our daily life. (2 marks)

- a) **Facilitate easy work.**
- b) **It reduces human effort.**

3) Explain two reasons why agricultural tools should be kept in a dry place. (2 marks)

-To avoid iron wet

-Prevention of Rust

-Maintenance of Tool Quality

4) Match the following tools with their uses

(2 marks)

Answer:

Tools	Uses
a) Clamp	i) blow air into fire
b) Anvil	ii) sharpening edge of metals
c) File	ii) hold metal while being cut
d) Bellows	iv) Where red hot metals are bent and shaped

5) Classify the following masonry tools according to their usage:

(3 marks)

Spade, Plumb line, trowel, spirit level, steel float, mortar mixer
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Answer:

Usage	Tools
Smoothing tools	mortar mixer
Leveling tools	Spirit level
Mixing tools	Spade

6) Name any one material that is used to make toys and learning objects.

(1 mark)

Answer: Polyethylene

7) Mention any two materials used while making a mat.

(2 marks)

Answer: Nylon, polypropylene

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

(2 marks)

a) You can make a toy watch from a manila paper**True**

by One can maintain a doll by keeping it in a wet place.....**False**.

9) As a learner who has been taught the importance of utility objects made of clay soil, suggest two benefits of such materials to people.

(2 marks)

Answer:

- It is not expensive.

-It is easy to get them.

10) Select the best answer: Solid water (ice) changes into liquid by:

(1 mark)

Answer: b) heat

11) Complete each of the following sentences with an appropriate word from those given in the brackets. (3 marks)

i) The air is a mixture of(liquids, **gases**)

ii) The main greenhouse gas is..... (**oxygen**, carbon dioxide)

iii) Air pollution may cause tuberculosis..... (tuberculosis, diabetes)

12) State whether the following statements are **True** or **False**. (2 marks)

a) Polio is a water bone disease..... **False**

b) Rain is the main source of water..... **True.**

13) Why is water considered to be very important in our daily life? Give two reasons. (2 marks)

Answer:

It used to drink.

It used to cook food.

14) Match the following Gases with their uses: (2 marks)

Gas	Use
Argon	Combustion
Carbon dioxide	Making fertilizers
Oxygen	Cooling process
Nitrogen	Lights bulb

15) Select components of soil from the following: (2 marks)

air, leaves, humus, manure, water

Answer: air, humus, water.

16) Give two examples of recyclable wastes. (2 marks)

Answer:

Paper: Newspapers, cardboard, office paper, and magazines can all be recycled and used to make new paper products.

Plastic: Various types of plastic bottles, containers, and packaging can be recycled and repurposed into new plastic products or other materials.

17) Complete the table below with types of waste and their examples (2 marks)

Types of waste	Example
Organic waste	Maize remains
Electronic waste	Old computers
Construction waste	Broken bricks, sheet remains
Biomedical waste	Used syringes

18) Farmers are encouraged to make terraces and plant trees in order: (1 mark)

Answer: d) to prevent soil erosion.

19) State whether each of the following statements is True or False. (2 marks)

a) A search engine is a software system where learners can search any kind of

information..... **True**

b) You can search for information without internet connection.....**False**

20) Explain the two advantages of using e-mail in real life. **(2 marks)**

Answer:

-Efficient communication

-document sharing.

21) Match the following parts of XO Laptop with their use. **(2 marks)**

Part	Use
a) Camera	i) For displaying work
b) Keyboard	ii) For switching on the computer.
c) Screen	iii) For taking pictures and videos.
d) Power button	iv) For typing letters and numbers,

22) Mention any two uses of a mobile phone. **(2 marks)**

Answer:

-Facilitate communication

-Facilitate Mobile money

23) What are the steps followed in creating a folder? **(2 marks)**

Answer:

-right-click

-Select the new-folder

24) ICT contributes a lot to individual life as well as community lives. Give any two positive contributions. **(2 marks)**

Answer:

-Facilitate social change.

- Development

25) Suggest one reason why farmers should feed well their chickens? **(1 mark)**

Answer:

-To give a good production.

-To avoid some diseases.

26) Mention any two reasons why we keep cattle in our country. **(2 marks)**

Answer:




- Give us milk and meat

- Give us manure

27) The Ministry of Health advises people to feed on at least one egg per week in order to fight against nutritional deficiency diseases. Do you agree with this statement or not? Justify your answer. (3 marks)

Answer: Yes, I agree because eggs are some of the food of a Balanced diet.

28) Identify the class of each of the animals in the table below. (3 marks)

Tilapia	Toad	Bat
		
Fish	reptiles	Mamal

29) Give two examples of domestic animals which are vertebrates. (2 marks)

Answer:

Cows.

goats.

30) Our Government administered the plantation of trees in all areas of Rwanda. Support this policy by giving two reasons. (2 marks)

Answer:

-Give us oxygen

-Give us fine wood.

31) Match the following elements: (2 marks)

Parts	Function
Stamen	Female part of flower
Ovary	Produces ovules
Pediceal	Male part of flower
Carpel/pistil	Attaches flower to the branch

32) State any two uses of leaves to animals? (2 marks)

Answer:

- It is food for them.

- Some can be animals Shelter

33) Choose the best answer. (2 marks)

After fertilization, the ovary develops into.....(seeds, **fruits**)

Asexual reproduction doesn't involve..... (ovary, **gametes**)

34) State any two importance of blood in the human body. (2 marks)

Answer:

-It brings oxygen.

-It carries carbon dioxide and other waste materials to the lungs

35) Identify any two consequences of smoking (2 marks)

Answer:

- Cause diseases (lungs)

-It causes the small air sacs

36) How do we call a special stage in human growth/development at which the first ejaculation occurs? (1 mark)

Answer: **Puberty**

37) State whether the following statements are **True** or **False** (2 marks)

i) The virus causing AIDS can be transmitted through sexual intercourse.....**True**

ii) Mosquitoes transmit the virus that causes HIV/AIDS..... **False**

38) Apart from tasting, mention other two functions of the tongue. (2 marks)

Answer:

- Help us to speak.

-move food around the mouth and help to shew food swallow.

39) Complete the following sentences: (2 marks)

a) The longest bone of the human body is..... **femur**

b) The place where two bones meet is called a..... **Articulation**

40) Match the following elements with their functions. (3 marks)

Type of muscles	Function
a) Voluntary muscles	i) Automatic movements
b) Cardiac muscles	ii) Controlled movements
c) Involuntary muscles	iii) Heart beats

41) How is family planning useful to our country? (2 marks)

Answer:

Help the Country to do a budget

To reduce the high growing of people.

42) Complete the sentences below with the correct words. (2 marks)

a) The sacs that keep air are called..... **Tiny air sacs.**

b) The poison gas found in tobacco is**Nicotine**

43) Establish the differences between white blood cells and red blood cells. (2 marks)

Answer:

White blood cells	Red blood cells
Part of the immune system; fight infections.	Transport oxygen and carbon dioxide.
Generally larger and have a nucleus.	Smaller and lack a nucleus in mature form.
Fewer in number compared to red blood cells.	More abundant in the bloodstream.
Various types with different functions.	Uniform in type (mostly erythrocytes).
Can move out of blood vessels to reach tissues.	Stay within blood vessels.

44) Match the types of teeth with their functions. (2 marks)

Teeth	Functions
a) Canines	i) Cutting food
b) Molars	ii) Chewing food
c) Incisors	iii) Tearing food
d) Pre-molars	iv) Grinding food

45) Draw two magnets which prove that two opposite sides attract each other. (2 marks)

Answer



46) How does electricity help in the conservation of the environment? (2 marks)

Answer:

-It is most necessary to cut down trees to get wood

-It is not necessary to use petrol.

47) Match the following tools with their uses:

(2 marks)

Tools	Use
a) Tester	i) cuts and holds wires
b) Rubber gloves	ii) prevents electric shock
c) Pliers	iii) checks the flow of electricity
d) Screw driver	iv) drives screws

48) Identify the states of matter from the following list: ice, liquid, water vapors, solid, stone, smoke, gas, juice.

(3 marks)

Answer:

- Solid:** Ice, stone
- Liquid:** Water (in its liquid state), juice
- Gas:** Water vapors, smoke

49) Mention any two sources of renewable energy.

(2 marks)

Answer:

- Solar energy:** Energy harnessed from the sun using solar panels.
- Wind energy:** Energy generated from wind using wind turbines..

50) Describe any one property of light shown by the image of your face in a plane mirror (1 mark)

Answer: Reflection and refraction

-END-