

**SCIENCE AND ELEMENTARY
TECHNOLOGY
PSET**

22/10/2014 9 a.m-11a.m



Pupil's complete index number

<i>Province/City</i>	<i>District</i>	<i>Sector</i>	<i>School</i>	<i>Pupil</i>

Pupil's names

Surname:

Other Names:

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

PRIMARY LEAVING NATIONAL EXAMINATIONS, 2014

Science and Elementary Technology

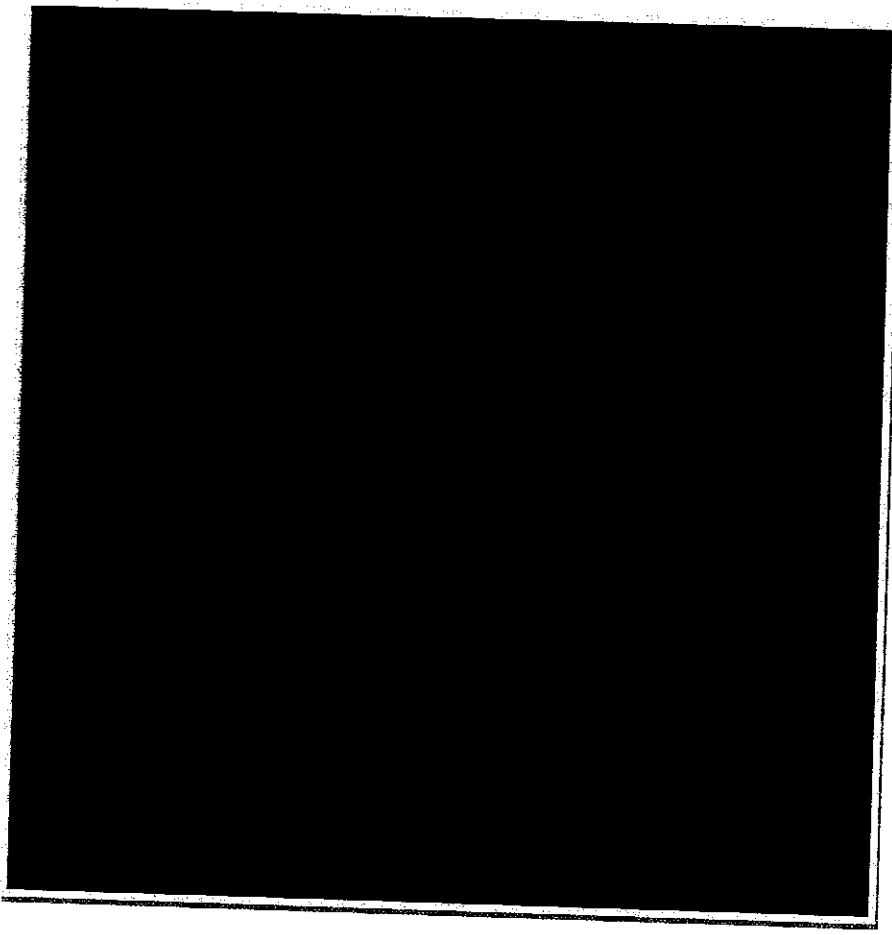
Duration: Two hours

Marks:

/100

INSTRUCTIONS

- 1) Don't open this question paper until you are told to do so.
- 2) This paper consists of 12 pages and 41 questions. Before starting, check if all pages and all questions are there and are arranged in 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.(a) Why is a hammer good for fixing together pieces of wood with a nail?
.....

(1mark)

(b) Why is a saw suitable tool for cutting wood?
.....

(1mark)

2.(a) One way of protecting the environment from rain water is:
.....

(1mark)

(b) One danger of stagnant water is:
.....

(1mark)

3. Complete the following sentences .

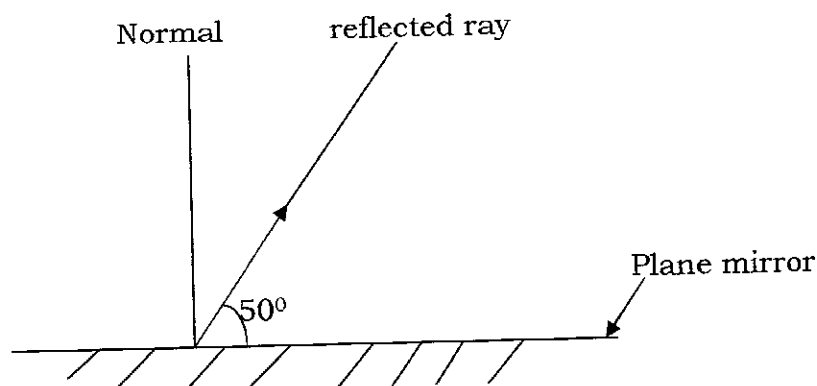
(a) An object which does not allow all the light to pass through it is called
.....

(1mark)

(b) The main source of natural light on earth is:
.....

(1mark)

4.The diagram below shows a reflected ray of light and a plane mirror .



(a) Draw an incident ray on the diagram.

(1mark)

(b) What is the size of the angle of reflection ?
.....

(1mark)

5.(a) When is the lunar eclipse formed ?
.....

(1mark)

(b) An umbra shadow is the
.....

(1mark)

6.(a) Give an example of a solid fuel.
.....

(1mark)

(b) Explain why although Petrol is a useful liquid fuel it can be dangerous if it is carelessly handled.

..... (1mark)

7. A dry cell stores chemical energy. In a torch, the chemical energy from the cell is converted into other energies. Name these energies.

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

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

(c) (1mark)

8.(a) Write one difference between a metal and a non – metal.

..... (1mark)

(b) Why are electric wires made of copper?

..... (1mark)

9. Air of the atmosphere is composed of many gases.

(a) Which of these gases supports burning of wood?

..... (1mark)

(b) Which gas puts off fire from burning wood?

..... (1mark)

10.(a) A stone sinks into water because.....

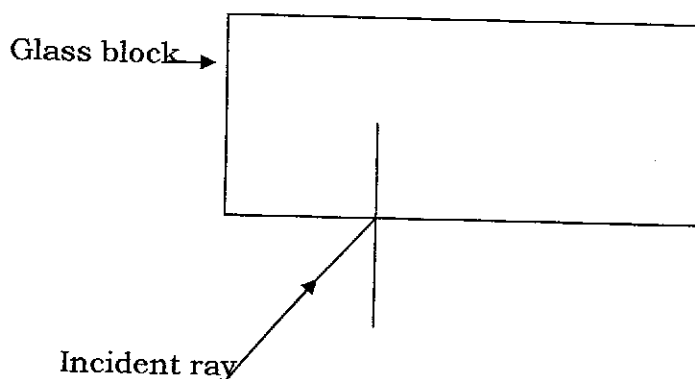
..... (1mark)

(b) What is the meaning of: relative density of a substance?

..... (1mark)

11. Complete the diagram below which shows a glass block and incident ray.

(1mark)



12.(a) By which method does heat travel through a liquid ?

..... (1mark)

- (b) Which liquid is a good conductor of heat?
..... **(1mark)**
13. Draw a simple electric circuit composed of: one dry cell, connecting wires , a switch and a lamp bulb. **(2 marks)**
14. In the distribution of electricity from the main source , the following materials are used: poles , transformers and cables (electric wires).
(a) What is the use of a transformer?
..... **(1mark)**
- (b) Why are cables (electric wires) used?
..... **(1mark)**
15. Give two uses of electricity.
(a)..... **(1mark)**
(b)..... **(1mark)**
16. It is bad to touch a switch with wet hands because
..... **(2marks)**
17. Give an example to prove that
(a) sound travels through water.
..... **(1mark)**
(b) sound does not travel through very hard surfaces.
..... **(1mark)**
18. (a) Can sound be stored ?
..... **(1mark)**
(b) Give an example to support your answer in (a) above .
..... **(1mark)**

19 .Why is a wheelbarrow used to carry heavy weights ? **(2marks)**

.....

20 . Name the source of clean water in your home .

21. (a) Lake water is not clean for drinking because..... **(1mark)**

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

(b) How is lake water made clean for drinking ?

..... **(1mark)**
(c) Name one disease caused by drinking dirty water (ie lake water, stagnant water, etc).

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

22. Draw a diagram to represent water cycle. Start from lake water. **(2marks)**

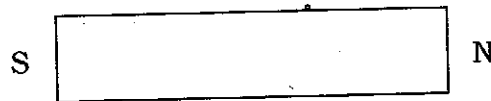
23.(a) What is a magnet ?

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

(b) Why is one end of a bar magnet called a north pole and the other a south pole?

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

24. The diagram below represents a bar magnet. Draw magnetic lines of force around it. (2marks)



25. Give two uses of magnets. (1mark)
- (a)..... (1mark)
- (b)..... (1mark)

SECTION B : Attempt all questions (50 marks)

26. Three respiratory diseases are:

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

27. (a) Give any three uses of food to man.

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

- (b) The best food for a baby of less than eight months is:.....

..... (1mark)

28. (a) The two types of germination are:

- (i) (1mark)
- (ii) (1mark)

- (b) For a bean seed to germinate, it must be mature and healthy.
Mention the other necessary conditions for the seed to germinate.

(3marks)

.....
.....

29. The table below shows foodstuffs prepared by different families.
Study it and answer the questions that follow.

Family A	Family B	Family C	Family D
Bananas	Cassava	Potatoes	Millet
Meat	Beans	Posho	Fish
Beans	Posho	Cassava	Meat
Yams	Yams	Yams	Mangoes

- (a) Which family has proteins but lacks fats?.....**(1mark)**

- (b) What food nutrients are lacking in family A?.....

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

- (c) Which family has a balanced diet?..... **(1mark)**

30. One reason which shows that animals and plants depend on each other is that

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

31. Give the differences between the life history of a cockroach and that of a housefly

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

32. Give the difference between the way man and insects breathe.

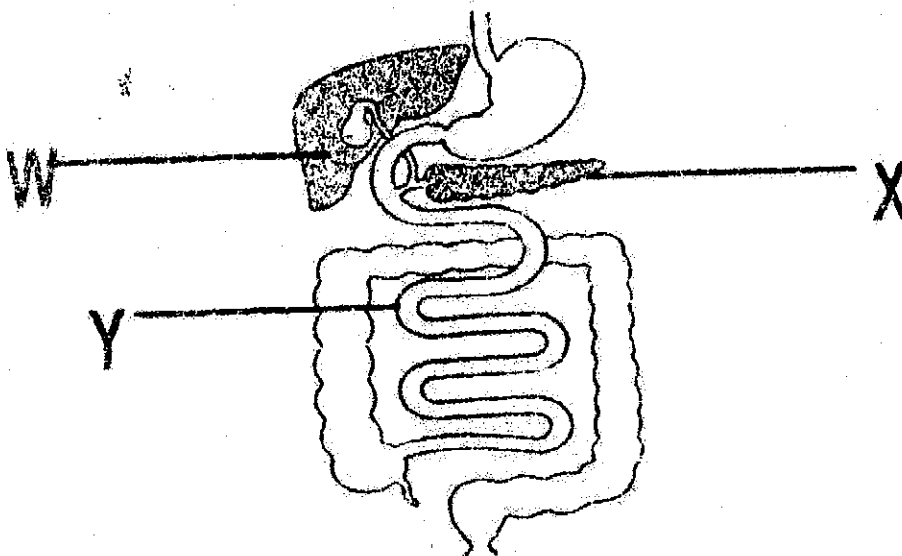
.....
..... **(2marks)**

33. Study the table below and answer the questions that follow.

A	B
Tilapia	Rat
Frog	Goat
Crocodile	Lion
Hen	Whale

- a) What is the similarity in the way the animals in list A reproduce?
 (1mark)
- b) The animals in list B belong to a group of animals called:.....
(1mark)
- c) In what way is the tilapia in list A similar to the whale in List B?
 (1mark)

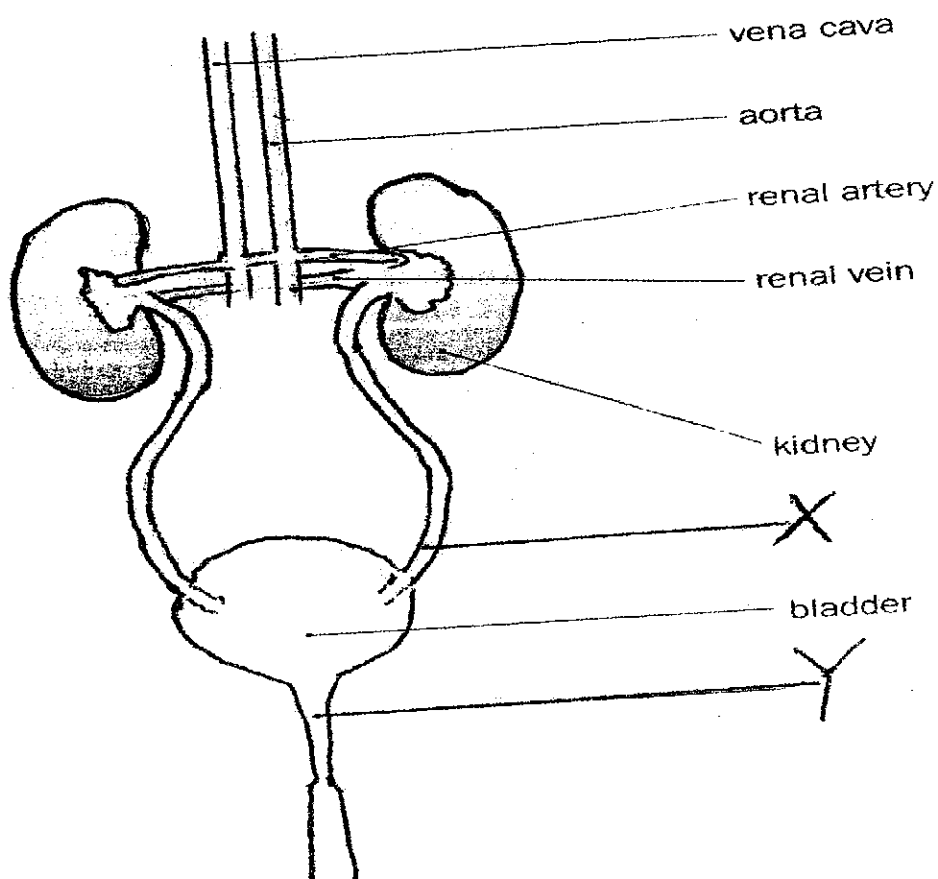
34. The diagram below shows part of the alimentary canal of a human being. Use it to answer the following questions.



- a) Name parts:
 X..... (1mark)

- Y..... (1mark)
- W..... (1mark)
- b) A process that takes place in the part marked Y is:.....
- (1mark)
- c) One use of the part marked X is:
- (1mark)
35. Give two ways of preventing and controlling each of the following diseases without using drugs.
- a) AIDS:
- (i)..... (1mark)
- (ii)..... (1mark)
- b) Malaria
- (i)..... (1mark)
- (ii)..... (1mark)
- 36.a) An earthworm is called an invertebrate because.....
- (1mark)
- b) One main use of a human skeleton is:
- (1mark)
- 37.a) All arteries carry oxygenated blood except.....
- (1mark)
- b) All veins carry deoxygenated blood except.....
- (1mark)
38. The structures on the leaf of a plant that help in the process of transportation are:.....
- (1mark)

39. The diagram below is a human urinary system.



- a) Name the parts labelled X and Y
X is:..... (1mark)
Y is:..... (1mark)
- b) The bladder is used for: (1mark)
.....
- c) What needs to be done in order to have a good urinary system?
..... (2marks)
40. a) STDs in full is:..... (2marks)
.....
- b) Two examples of STDs are:
(i)..... (1mark)
(ii)..... (1mark)

41. Knowledge of science and technology helps human beings in the following ways:

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

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

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