

Elementary Science and Technology PEST

27 Oct. 2010 9h00 – 11h00



P.O.Box 3817 KIGALI-TEL/FAX : 586871

Pupil's complete index number

*Province/City**District**Sector**School**Pupil*

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PRIMARY LEAVING NATIONAL EXAMINATION

October 2010

ELEMENTARY SCIENCE AND TECHNOLOGY

Time: Two hours

Marks:

/100

Instructions

- Write your index number in full as written on your registration form.
- Answer all questions.
- Write your answers in the space provided on your question paper.
- Read each question carefully before answering it.
- Do not make alterations.

SECTION A: (50 MARKS)

1. Who uses a tool called water level? (1 mark))
2. (a) Is the moon a source of light ? YES or NO..... (1 mark)
- (b) Give an example of a man made source of light. (1 mark)

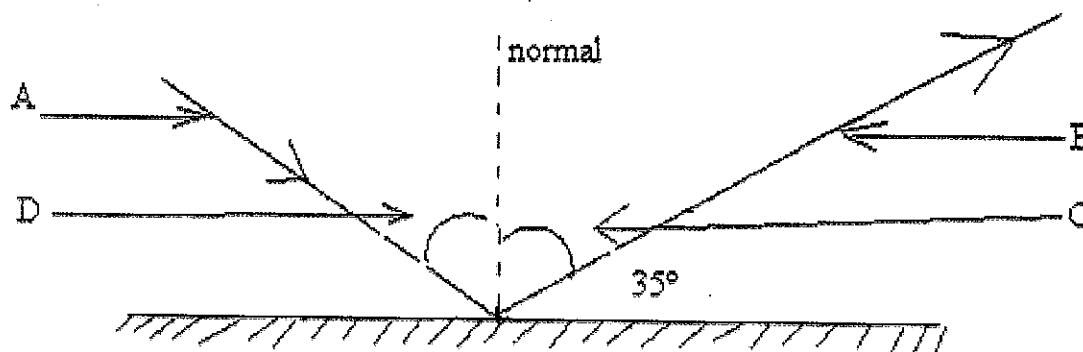
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3. Name any liquid fuel and mention where it is used. (2 marks)

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4. The diagram shows a flat mirror reflecting a ray of light.



Ray A is called (1 mark)

Ray B is called (1 mark)

Angle C is called (1 mark)

Angle D = ... (1 mark)

5. Why are windows in houses made of transparent glasses? (2 marks)

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6. Where does the light from a torch come from? (3 marks)

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.....

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7. Why does tea in an ordinary aluminium kettle cool down fast.? (2 marks)

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8. By which method does the heat from the sun reach the earth? (1 mark)

From question 9 to question 12 answer TRUE or FALSE.

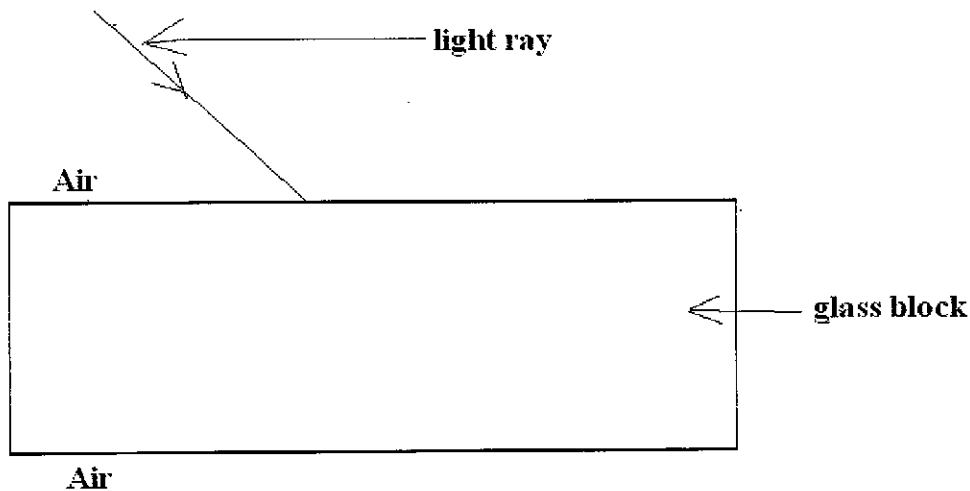
9. Air has no mass. (1 mark)

10. Water has a colour. (1 mark)

11. Stones have greater density than sand. (1 mark)

12. When ice is heated its volume decreases (1 mark)

13. The diagram shows a ray of light entering a glass block. Complete it. (2 marks)



14. Water pollution is caused by:

(a) (2 marks)

(b) (2 marks)

15. Select two materials from among : **dry wood, iron bar, glass rod, aluminium rod** which are good conductors of heat (2 marks)

.....
.....

16. (a) State two uses of electricity in hospitals in Rwanda . (2 marks)

.....
.....

(b) Mention any two dangers of electricity. (2 marks)

.....
.....

17. (a) Does sound travel through water ? .YES or NO . (1 mark)

(b) Give an example to support your answer in 17(a). (2 marks)

.....
.....

18 .Which of the following materials are attracted by a magnet:: **copper, steel, carbon, iron** ?

..... (2 marks)

19. Air is composed of many gases.

Name any two of the gases in air. (i) (1 mark)

(ii) (1 mark)

Which gas puts off the flame of a burning candle? (1 mark)

20. Sound from a distant object is heard louder during the night than during the day.

Why? (3 marks)

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21. Why is it that on a bright day the sky appears blue ? (3 marks)

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22. (a) What is the unit of density? (1 mark)

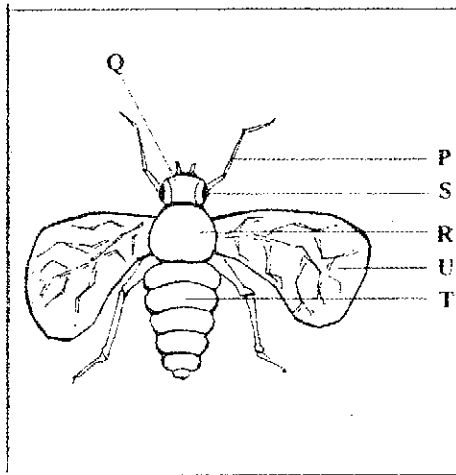
(b) The mass of a body is 18 g and its volume is 12 cm^3 . Find the density of the body . (2 marks)

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SECTION B: (50 MARKS)

23. a) How many legs does an insect have? (1 mark)
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- b) Where are the legs of an insect attached? (1 mark)
.....
- c) Why is a spider not considered to be an insect? (1 mark)
.....
24. a) What is pollination? (1 mark)
.....
.....
- b) Give two names of animals which carry out pollination. (1 mark)
.....
- c) What happens after pollination? (1 mark)
.....
25. a) In what ways do plants depend on animals for growth? (1 mark)
.....
- b) Plants make their own food. What do plants use to make their food? (2 marks)
.....
26. a) How does an insect breathe? (1 mark)
.....
- b) Give two diseases spread by the housefly. (1 mark)
.....
27. Give at least two ways in which forests can be conserved. (2 marks)
.....

28. The diagram below shows a housefly.



a) Name the parts labelled Q, R, S and T.

(2 marks)

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.....

b) What is the function (use) of part P?

(1 mark)

.....

29. What two activities can be carried out at school to destroy mosquitoes?

(1 mark)

.....

30. Name the mosquito that spreads malaria.

(1 mark)

.....

31. What causes malaria?

(1 mark)

.....

32. a) Name any two water-borne diseases caused by bacteria.

(1 mark)

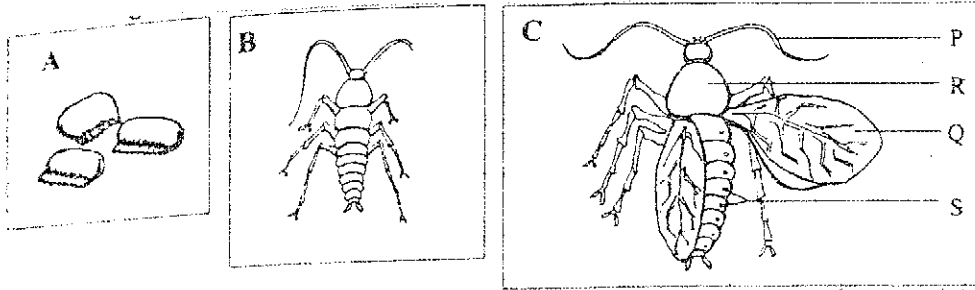
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b) How can water-borne diseases be controlled?

(1 mark)

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33. The diagram below shows stages of development of a cockroach.



a) Name the stages A, B and C.

(3 marks)

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b) Name the parts marked P and S.

(1 mark)

.....

c) What feature does stage B have that makes it different from stage C?

(1 mark)

.....

34. An elderly man has lost all his molar teeth. Identify two feeding problems he is likely to experience.

(2 marks)

.....

35. a) Lungs are to man as.....are to tadpoles.

(1 mark)

b) Give two ways by which an adult frog breathes.

(2 marks)

.....

36. a) Give two organs of blood circulatory system.

(2 marks)

.....

b) What name is given to the smallest blood vessel in the human body?

(1 mark)

.....

37. What is the largest blood vessel in the human body?

(1 mark)

.....

38. Salmonella is an infectious disease of chicken. What are signs of Salmonella? (2 marks)
.....
39. Explain why fish is able to swim (2 marks)
.....
40. Give two uses of oxygen: (2 marks)
(i)
(ii)
41. What is the use of carbon dioxide in plants? (1 marks)
.....
.....
.....
42. The air we breathe can be made dirty by different pollutants. (3 marks)
Give at least **THREE** sources of pollution.
.....
.....
.....
43. There are several reasons for processing food. Give only two reasons why food should be processed. (2 marks)
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.....
.....
44. What is the role of the following organs during digestion of food: (2 marks)
(i) Small intestines?
.....
(ii Pancreas)?
.....
45. Name ONE method you can use to prevent HIV/ AIDS. (1 mark)
.....
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