

# SCIENCE PLE 2017 EXTRACT

PUPIL'S COMPLETE INDEX NUMBER				
Province/city	District	Sector	School	Pupil
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PUPIL'S FULL NAME				
Sur name	:	_____		
Other names	:	_____		

## SECTION A: Answer all questions. (50 marks)

1. What is a "water level" used for?

\_\_\_\_\_

2. Name any two dangers of stagnant water.

\_\_\_\_\_

3. Why is a moon not regarded as a natural source of light?

\_\_\_\_\_

4. What is the difference between transparent and translucent objects?

\_\_\_\_\_

5. Name two major sources of energy used to cook food in Rwanda.

\_\_\_\_\_

6. Copper wires are used in electricity because: (Give two)

\_\_\_\_\_

7. Why is the air of the atmosphere important? (Give two)

\_\_\_\_\_

8. Name any two properties of solids.

\_\_\_\_\_

9. What is meant by the term "mass" of a body?

\_\_\_\_\_

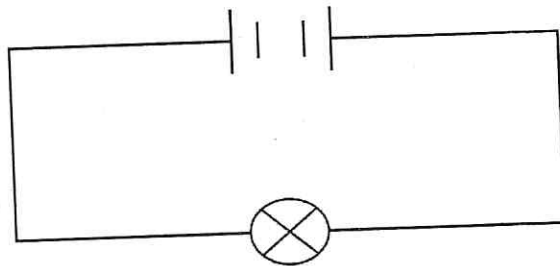
10. A dry piece of wood floats on water because:

11. State any one law of reflection of light.

12. What is meant by the term "refraction" as applied to an oblique incident ray of light travelling from air through water?

13. Mention any two methods of heat transfer.

14. Below is a diagram of a simple electric circuit. Why does the lamp not light?



15. Draw the diagram in question (14) so that the lamp lights.

16. Mention two uses of electricity in homes.

17. Name two sources of sound.

18. Give two examples where sound is stored and is heard whenever it is needed.

19. Name any two types of simple machines.

20. State any two ways of purifying dirty water.

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21. How can you change the state of ice to liquid state?

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22. Name two types of shadows.

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23. Heat energy is used for: (Give two)

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24. Two properties of magnets are:

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25. What is a "magnetic compass"?

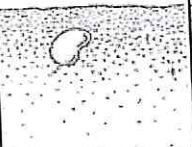
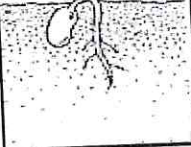
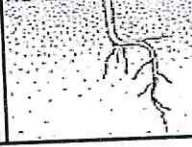
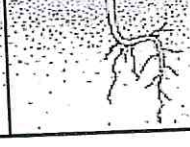
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**SECTION B: Answer all questions. (50 marks)**

26. Complete the table by filling in the missing words.  
An example is done for you on the first row.

Deficiency of (lack of)	Disease
Proteins	Kwashiorkor
_____	Rickets
Iodine	_____
_____	Beri beri
Iron	_____

27. The diagram below shows the process by which a bean seed grows into a plant.

Stage	A	B	C	D
Length(cm)	0.6cm	2.0cm	7.0cm	11.0cm
Appearance of seed/plant				

a. Name the process shown by the above diagram.

b. Give three conditions necessary for the process above to take place.

c. How many centimetres (cm) has the bean plant grown from stage B to stage D?

28. a. The reproductive part of a plant is the

b. Give two uses of flowers in the environment.

29. a. The difference between pollination and fertilization is that;

Pollination is

Fertilization is

b. The two types of pollination are:

c. Fill in the blanks with the appropriate words:

After fertilization, the \_\_\_\_\_ becomes the fruit and the \_\_\_\_\_ become the seeds.

30. Using arrows (→), match the following organs of the urinary system to their functions:

**Organs**

Ureter

Kidney

Urethra

Bladder

**Functions**

where urine is produced.

brings urine from the kidneys to the bladder.

where urine is stored.

where urine is eliminated from the body.

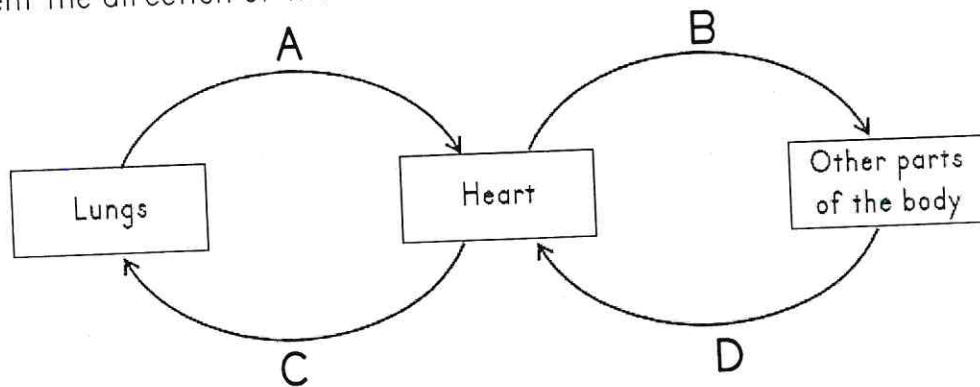
31. a. Name two types of blood circulation that happen in the human body.

b. Do all arteries carry oxygenated blood?

c. Explain your answer given in (b) above.

d. Give two things which happen to blood from the heart when it reaches the lungs.

32. The diagram below shows the circulatory system of a human. The arrows represent the direction of the flow of blood in the body.



Name the blood vessel A, B, C and D.

Blood vessel A is \_\_\_\_\_

Blood vessel B is \_\_\_\_\_

Blood vessel C is \_\_\_\_\_

Blood vessel D is \_\_\_\_\_

33. a. Alveoli are small bags found in the

b. Why are we advised to breathe through the nose rather than through the mouth? \_\_\_\_\_

34. a. What is "suffocation"?

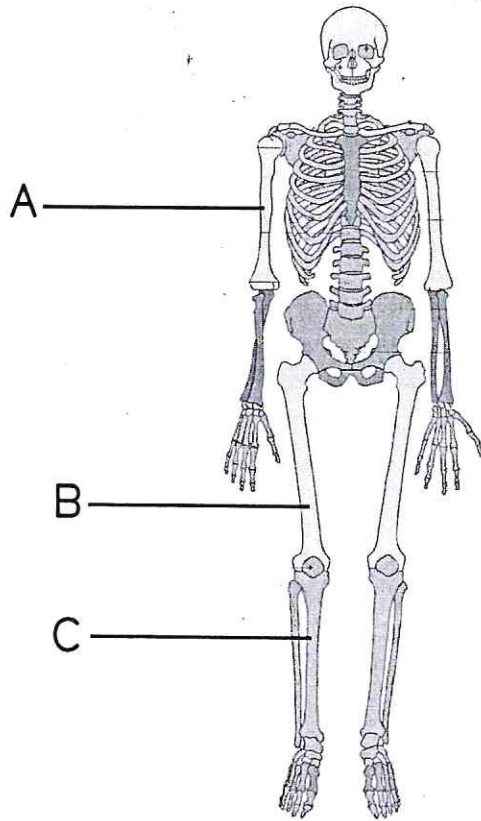
b. How can you help a person who is suffocating?

c. Name one disease caused by smoking.

35. a. One of the diseases we can get from eating dirty/unclean food is:

b. Give two ways to keep proper food hygiene.

36. The diagram below shows the human skeleton.



a. Name the bones A, B and C.

A \_\_\_\_\_ B \_\_\_\_\_

C \_\_\_\_\_

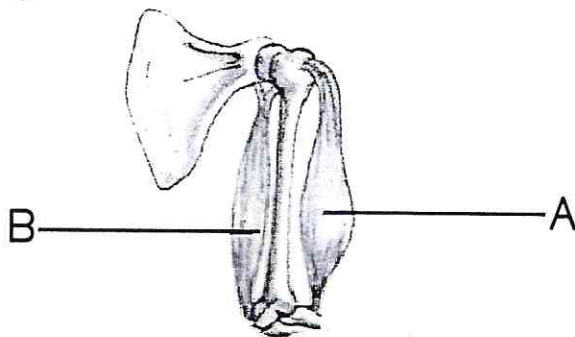
b. Give one function of the human skeleton.

\_\_\_\_\_

c. Give one danger of walking or sitting in a bad position.

\_\_\_\_\_

37. The diagram below shows the muscles of the human arm.



a. Name the muscles A and B.

A \_\_\_\_\_ B \_\_\_\_\_

b. What happens:

i. to muscle A when the arm is bent?

\_\_\_\_\_

ii. to muscle B when the arm is bent?

\_\_\_\_\_