

MOCK EXAMINATION 2019
2012
P1 SCIENCE
March 2019
Time: 3 hours

INSTRUCTIONS TO CANDIDATES

- 1. This question paper consists of two sections A and B.
- 3. Answer ALL questions in the spaces provided, **in English.**
- 4. **Diagrams MUST be drawn in pencil**

FOR OFFICIAL USE ONLY:

SECTION	QUESTION	MAXIMUM SCORE	SCORE
A	1 -6	60	
B	7	8	
	8	8	
	9	11	
	10	7	
	11	6	

SECTION A (60 Marks)

Answer **ALL** questions in the spaces provided.

1. A standard VII science teacher and his pupils wanted to investigate the solubility of different substances in water, using the following materials: plastic bottles, knife, water, sugar, salt, Potassium permanganate, thin sticks.

a) Identify other two materials the teacher needs to provide for this investigation.
..... (2 marks)

b) What is the purpose of the knife and thin sticks in this investigation?

Knife (1 marks)

Sticks (1 mark)

c) Give three variables that need to be controlled in this investigation. (3 marks)

d) State three reasons why practical method is suitable for conducting this lesson.marks)

2. Class I science teacher planned to teach the topic Weather, sub – topic “Weather Changes” using Science walk method.

a) Write one skill objective for the lesson.

.....2 marks)

b) Give four activities the teacher could ask the learners to do during the walk.

..... (4 marks)

(c) State two follow up activities the teacher would ask the learners to do after the science walk.

..... (2 marks)

d) Write a suitable BB Summary that the teacher could develop for the lesson.

.....(2 marks)

3. A standard V teacher planned to teach the content: States of Matter using dynamic approach.

(a) State two characteristics of dynamic approach.

..... (2 marks)

(b) Using the guideline given below, describe how the teacher would use dynamic approach to lead pupils to conclude that there are three states of matter namely solid, liquid and gas.

(i) Materials: Ice, Tin and (1 mark)

(ii) Procedure:

1.....

2.....

3.....

4.....

(4 marks)

c) Write one question the teacher would ask learners at the introduction of the lesson to develop the skill of prediction.

..... (1 mark)

4. A science teacher prepared a scheme of work for standard four. One of the topics in the scheme of work was “Types of crops”. Materials included in the resource column were maize, kale, mango, beans, sunflower, sisal and tea.

a) State three reasons why it was necessary for the teacher to prepare a scheme of work.....

.....(3 marks)

- b) State two factors the teacher had to consider when preparing the scheme of work. (2 marks)
- c) In the table below, write three teaching activities and their corresponding learning activities that the teacher could include in the scheme of work.

Teaching activity	Learning activity

(3 marks)

- d) Give two reasons why objectives are stated in a scheme of work. (2 marks)
- e) Write a remark the teacher could have indicated in the remarks column of the scheme of work. ...

..... (2 marks)

5. A standard VI science teacher intended to invite a guest speaker to teach a lesson on importance of HIV testing.

- a) State the information the teacher would give the guest speaker to help in making preparation. (2 marks)

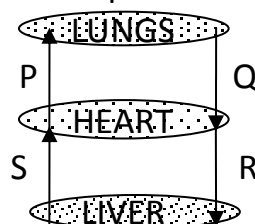
- b) State four reasons the guest speaker would give the learners as to why testing for HIV is important. (4 marks)

- c) Give two preparations the teacher would ask the learners to make before the lesson. (2 marks)

- d) State two reasons why it is sometimes necessary for a teacher to invite a guest speaker.(2 mark)

6. The following question was set in a KCPE Science paper:

- a) The diagram below represents a simplified blood circulatory system.



Which pair of blood vessels carries oxygenated blood?

- A Q and R
- B P and S
- C Q and S
- D P and R

- (i) What is the key? (1 mark)
- (ii) State the mental ability being tested. (1 mark)
- b) Give two advantages of objective tests.
..... (2 marks)
- c) State two qualities of a good multiple choice item.
..... (2 marks)
- d) State two reasons why a table of test specification is important when setting an exam paper. (2 marks)
- e) Give two reasons for using a marking scheme when scoring an examination paper. (2 marks)

SECTION B (40 Marks)

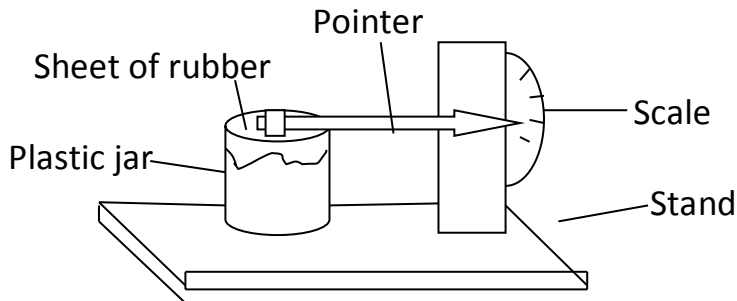
Answer ALL questions in this section in the spaces provided.

7. A Standard six class carried out a practical activity to investigate how temperature affects the hatching of eggs by artificial hatcheries. They used 9 similar hatcheries, and placed 100 eggs in each hatchery. Then they placed each of the hatcheries at different temperatures but at same conditions of air and moisture. Percentage of eggs that hatched was recorded in the table below:

Temperature °C	0	5	10	15	20	25	30	35	40
% Eggs Hatched	0	2	5	8	16	50	84	30	2

- a) On the grid provided draw a graph of percentage of egg hatched against temperature. (4 marks)
- b) Determine the rate of decrease in percentage of eggs hatched between 30°C and 40°C. (2 marks)
- c) Describe the shape of the graph from 15°C to 30°C.
..... (2 marks)

8. The following diagram represents an instrument used to measure an aspect of weather.

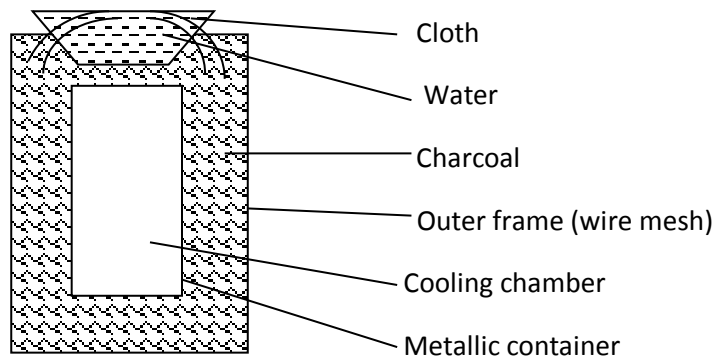


- a) Name the instrument. (1 mark)
 b) State the aspect of weather that it measures. (1 mark)
 c) Explain how the instrument works.
 (2 marks)

9. a) Explain how mulching helps to conserve soil.
 (2 marks)

(b) Explain why individuals of blood group AB are called universal recipients.
 (2 marks)

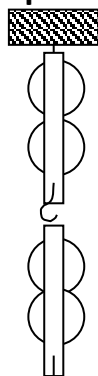
10. The diagram below represents an improvised charcoal cooler.

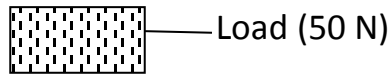


Explain how the cooler works.

..... (4 marks)

11. The diagram below represents an arrangement of pulleys.





- a) Indicate on the diagram how a string should be tied on the system for it to lift the load when effort is applied. (2 marks)
- b) Calculate the mechanical advantage of the pulley system if an effort of 12.5 N was used to lift the load.

..... (2 marks)

12. a) Distinguish between temporary and permanent hardness of water.

..... (2 marks)

b) State two ways in which plants depend on animals for food.

..... (2 marks)

13. a) State two reasons why meat should be cooked properly before eating.

..... (2 marks)

b) Give two groups of people with special nutritional needs.

..... (2 marks)

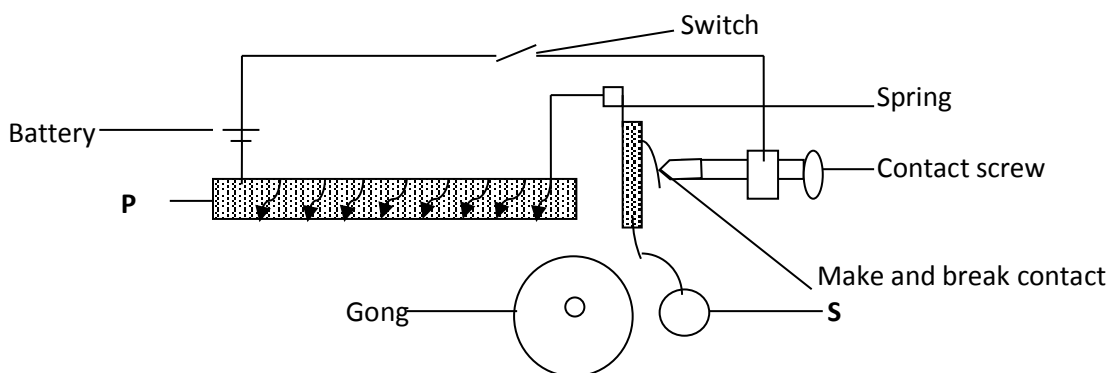
14. a) Distinguish between green and non-green plants.

..... (2 marks)

b) In the space provided below draw and label a monocot seed and a dicot seed and label the parts.

..... (2 marks)

15. The diagram below represents an electric bell.



a) Name the parts labeled P and S.

P (1 mark)

S (1 mark)

b) When the switch is closed, the bell rings. State the correct order of energy transformations that take place for the bell to ring.

..... (2 marks)

