

**PRIMARY TEACHER EDUCATION
SCIENCE MOCK
2¹/₂ HRS.**

**SCIENCE
MOCK EXAMINATION
MARCH/APRIL 2018
TIME 2¹/₂ HRS**

INDEX NO _____ **DATE** _____
NAME _____
COLLEGE CLASS _____ **SIGN** _____

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provide above.
2. Sign and write the date of the examination in the space provided above.
3. Write you college class.
- 4 .This question paper consists of Two sections: A and B.
5. Answer all the questions.
6. All answers **MUST** be written in the space provided.
7. Do not remove any pages from this booklet.

FOR OFFICIAL USE ONLY

1	2	3	4	5	6	TOTAL

SECTION B

7	8	9	10	11	12	13	14	15	TOTAL

GRAND TOTAL

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SECTION A (60mks)

Answer all the questions in this section in the space provided.

1. While teaching standard 3 learners the sub- topic.: 'Effects of weather on farming activities': the teacher took the learners to a nearby farm.
a) Give two attitudes & two skills that were likely to be achieved during the lesson.

(2mks)

i) Attitude

ii) Skills

- b) State two methods the learners would use for recording in the information during the lesson.

(2mks)

- c) Give two reasons why the teacher should encourage learners to record information during a science lesson.

(2mks)

2. a) while teaching external livestock parasites the teacher asked the learners in std 7 to make models of the parasites.

i) Prepare a suitable marking scheme of which would enable the teacher to mark the finished products.

(2mks)

ii) Give two other methods of assessment suitable in this lesson. (2mks)

iii) Name one external livestock parasite which could be modeled in the lesson. (2mks)

b) Give the three types of questions. (3mks)

c) State two purpose of maintain pupils progress record to the teacher. (2mks)

3a) State three differences between essay and objective tests. (3mks)

b) Complete the following items by providing the key at A and distracters at B and C. Which one of the following examples of levers has the position of effort between the load and fulcrum when in use. (3mks)

A(key)_____

B_____

C_____

iii) Which level of ability is being tested by the item. (1mk)

C i) One of the qualities of a good test is validity. What does it mean? (1mk)

ii) Give two other qualities of a good test. (2mks)

d) Give two reasons why a Table of specification is important when constructing test item. (2mks)

4. A teacher at Kiaraho Primary School planned to teach class 6 about the sub-topic "how light travel" she introduced the lesson by asking pupil "how does light travel"? but there was no response from the learners .

a) What was wrong with this introduction? (1mk)

b) During activity one the teacher drew the diagram shown below

i) On the diagram label the parts A,B and C.

(3mks)

ii) Make one correction on the diagram the teacher should have done.

(1mk)

c) The diagram show below shows a means of heat transfer in a certain medium. As demonstrated by a teacher

ii) On the diagram indicate what the teacher would observe if the heating continues for some minutes.

(2mks)

ii) Label part Z. (1mk)

iii) Name the process that takes place after the heating continues. (1mk)

d) In reference to type of teaching aids used, give a reason why the teacher chooses the demonstration method of teaching? (1mk)

5) A teacher taught STD IV learners the sub-topic problems related to teeth using the dynamic approach. He used posters and models of human teeth.

a) Explain why the dynamic approach of teaching science was appropriate for this lesson. (2mks)

b) The teacher observed that many learners in the class had cavities in their teeth. List the first four steps that would be taken to solve this problem. (4mks)

c) Define the term science.

(2mks)

6a) While teaching vegetable propagation in plant, a teacher decided to take STD 8 pupils to the school farm.

i) Other than a lesson plan, state two preparations the teacher should make before the lesson.

(2mks)

ii) State two disadvantages of this method of teaching to the learners.

(2mks)

b) In a lesson to investigate the rate of soil drainage, a class teacher provided the pupils with dry loam soil, a watch, water a funnel, cotton wool and a measuring cylinder. Draw a labeled diagram of a set up that could be used to investigate water drainage and retention of the given soil in the space provided.

(2mks)

c) Support the statement below with two reasons "science should be taught in primary school"

d) State two importance of teaching practice to a science teacher trainee.

(2mk)

SECTION B (40mks)

Answer all the questions in this section in the space provided.

7. The table below shows the population of cheaters verse that of gazelles in thousands in savannah grassland as observed in an investigation in a duration of a year.

Months of the year	J	F	M	A	M	J	J	A	S	O
Population of cheaters	15	27	30	28	22	19	16	11	32	31
Population of gazelles.	89	90	97	92	90	82	72	56	101	103

N	D
28	24
106	107

a) On the grid provided draw a bar graphs of the population of cheetahs, gazelles against the months of the year on the same axis.

(4mks)

b) The cheetahs and the gazelles are in what kind of relationship in that ecosystem?

(1mk)

c) What could have contributed to the sudden rise in the population of gazelles in the month of September give 4 reasons?

(1mk)

8.a) The diagram below represents a set up that was used in preparation of carbon dioxide.

i) Label chemical P. (1mk)

ii) State one mistake in the above set-up. (1mk)

b) Give the reasons why carbon dioxide is used in fire extinguishers. (1mk)

9.a) The diagram below (not drawn to scale) represents a single machine that could be used to move a rock.

i) On the diagram indicate the position of the effort and the fulcrum. (1mk)

ii) If the mechanical advantage is 40, what force in Newtons Law would be needed to move the rock. (1mk)

b) Explain the following statements:

i) The floor of a bathroom should be scrubbed thoroughly and regularly. (1mk)

ii) The radius of a handle of a wheel is much larger than radius of the axle in a winch. (1mk)

10. Explain how atmospheric pressure makes it possible for a person to draw out petrol from a tank using a hose pipe. (2mks)

b) The figure below shows the shape of a drop of mercury on a glass surface.

Explain the shape of the drop of mercury. (1mk)

c) State the method of heat transfer in an iron nail heated from one end. (1mk)

11.a) State two importance of feeding an infant using breast milk. (2mks)

b) Explain the principal behind use of honey in preserving food.(1mk)

c) Give two methods of controlling weeds. (2mks)

12. State two ways in which the lungs are adapted to their function. (2mks)

b) Functions of plasma in the human circulatory system. (2mks)

13.a The diagram below shows some setups in transferring electricity as a form of energy.

i) Name parts labeled A and B. (2mks)

i) A _____

ii) B _____

iii) Give the types of circuit the cells are arranged in. (1mk)

13.b) A teacher gave her pupil the table given below to fill. Complete the table by entering the appropriate data.

Characteristic of soil	Smooth particles Tiny particles		Average sized particles, red Brown in colour
Types of soil		sand	loam

(No questions)

14.a) Comets are rarely seen in the sky, explain (1mk)

b) Most of the instruments used when studying weather are improved. Give one disadvantages of such instruments. (1mk)

c) Differentiate temporary hardness and permanent hardness in water.(1mk)

d) State one method of softening permanent hard water. (1mk)
