P1 SCIENCE
PTE MOCK EXAMINATION
MARCH/APRIL 2019
TIME: 2 ½ HRS

INSTRUCTION TO CANDIDATES

1. *This question paper consist of **TWO** sections **A** and **B***
2. *Answer **ALL** the questions*

FOR OFFICIAL USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
A	1		
	2		
	3		
	4		
	5		
	6		
B	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		

SECTION A: (60 MARKS)

1. A science teacher wanted his pupils to conduct an experiment to compare conductivity of heat in different solids
   a) List materials that would be required by the pupils for the investigation (2mks)

   _____

   b) State ONE knowledge objective and ONE skill objective that would be suitable for the lesson (4mks)

      (i) Knowledge _____

   c) Skill objective _____ State FOUR variables that should be controlled during the investigation (4mks)

   _____

d) State TWO ways by which the teacher could involve the pupils before and after the investigation

(i) Before investigation (2mks)

_____

(ii) After investigation (2mks)

_____

2. A standard III science teacher bought muddy water, a clean piece of cloth and an empty container to class. The teacher placed the piece of cloth on the container and poured the water through it. He then claimed that the water collected was safe for drinking

(a) State the subtopic for this lesson (1mk)

_____

(b) Write a suitable question that may be used to introduce this lesson (2mks)

_____

(c) (i) Explain why the water collected in the container is not safe for drinking (2mks)

_____

(ii) State how this water can be made safe for drinking (1mk)

_____

(d) State three reasons why the teacher should have asked the pupils to do the experiment in groups instead of him demonstrating (3mks)

_____

3. The diagram below represents an instrument that is used to measure on aspect of weather

a) Name the instrument and the aspect of weather it measures (2mks)

Name of instrument _____

Aspect of weather _____

b) Describe how to construct on improvised instrument illustrated above under the following sub-heading

(i) Materials (2mks)

_____

(ii) Procedure (4mks)

_____

4. (a) Dynamic view regards science as a "changing body of knowledge" explain the statement (2mks)

_____

(b) A teacher planned to teach pupils a lesson whose sub-topic was "components of soil" using experiments method

(i) List three teachers role during the experiment (2mks)

(ii) State at least three advantages of experimentation method in teaching science (3mks)

(iii) Mention three preparations the teacher should have made prior to the lesson (3mks)

5. A teacher was teaching class seven pupils on a topic food and nutrition. He brought the following teaching resource in class

(i) Name the teaching resource illustrated (2mks)

Which condition is the child shown likely to be suffering from (2mks)

(b) (i) Mention three examples of modern ways of food presentation and three traditional ways of food preservation.

Modern method (2mks)

Traditional method (2mks)

(ii) State reasons why expectant methods require plenty of food rich in calcium and phosphorus (2mks)

6. A science teacher decided to use nature walk as a method of teaching the topic "interdependence between plants"

(a) State FOUR preparations the teacher should make before the nature walk (2mks)

(b) State TWO precautions that the teacher should give to the pupils (3mks)

(c) State FOUR activities the pupils can carry-out using the samples of plants they had collected (2mks)

(d) State ONE problem the teacher is likely to encounter if he fails to accompany the pupils during the nature walk (2mks)

_____

SECTION B: 50 MARKS

7. The data in the table below represents the mass of a certain animal measured every week for 15 weeks

TIME IN WEEKS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MASS IN g	100	125	150	175	225	275	300	350	400	450	475	500	500	500	500	500

(a) (i) On the grid provided draw the graph of time (x-axis) against mass (3mks)

(ii) During which period did the animal grow faster (1mk)

_____

(iii) What was the mass of the animal at 8 ½ weeks (1mk)

_____

(iv) Suggest two reasons for the shape of the curve between 11^{th} and 14^{th} week (1mk)

_____

(b) The diagram below represents a set up that could be used to demonstrate that air has weight

(i) Identify the parts labeled K & L (1mk)

_____

(ii) Explain how the set up works (2mks)

_____

(iii) Other than the material identified in b(i) above name other three materials that may be required to construct the set-up (2mks)

_____

8. (a) Identify differences , between a plant cell and an animal cell (2mks)

(i) Plant cell _____

(ii) Animal cell _____

(b) State FOUR main characteristics of mammals (2mks)

(c) The following diagrams can illustrate the stages in the life cycle of an insect

(i) Identify the stages 1,2,3,4 in A and stages 1,2,3,in B (2mks)

(ii) Which cycle belongs to housefly and locust respectively (2mks)

Housefly _____

Locust _____

(iii) List THREE measures that used to control internal parasites in livestock (2mks)

9. Answer the questions below as instructed

(a) Fill the immunization table given appropriately (1mks)

Age of Child	vaccine given	disease immunized
_____	_____	_____
At birth	_____	_____
6 weeks	_____	_____

(b) State THREE precautions that should be undertaken when handling chemicals at home (2mks)

(c) State FOUR effects of using cannabis sativa (Bhang) (2mks)

10. The diagram below represents a set up that can be used to show that sound can move through solids

(i) Describe the procedure you would use to design the experiment (2mks)

(ii) State FOUR uses of magnets (2mks)

(iii) State THREE causes of water pollution (2mks)

11. (a) List materials you would use to prepare a homemade indicator for use by pupils in a classroom – set-up (2mks)

(b) The diagram below represents a set up that could be used to demonstrate that air occupies space

Explain how the set-up works (2mks)

12. (a) The diagram below represents the structure of the human skin

Name the parts labeled (1mks)

A _____

B _____

C _____

(b) Explain the reasons why when one has a cold, he or she may lose the sense of smell (2mks)

13. The diagram below represents a set of pulley system

(i) On the diagram show how the pulleys are connected when in use (1mk)

(ii) A pulley was used to lift a load of 5oo N. Calculate the MA of the machine if the effort force was 2oo N (2mks)

14. (a) The diagram below illustrates the structure of the human excretory system

(i) Name the structures (2mks)

X _____

Y _____

Z _____

(ii) Identify the roles of the named hormones below in the human body systems (2mks)

Antidiuretic hormone _____

Prolactin _____

15. (a) The pie chart below represents the main components of air

(i) Identify the gas labeled G and H (1mk)

_____

(ii) State why the gas labeled J is important to the human body (1mk)

_____

(iii) Name a substance present in air whose quantity varies from day to day (1mk)

_____

(b) State two ways by which air pollution can be reduced (2mks)

_____