GRADE: 7
SUBJECT : NATURAL SCIENCES

TERM 2

EXEMPLAR / MODEL
JUNE EXAMINATION PAPER

Name: _____

Class: _____ Date: _____

School: _____ Teacher: _____

FAT	ACTIVITY	Learner's mark	% of learner
	EXAMINATION		
TOTAL		**80**	**100**

iNSTRUCTIONS

1. Answer all the questions in the spaces provided.
2. Write with a pen
3. Write neatly and legibly

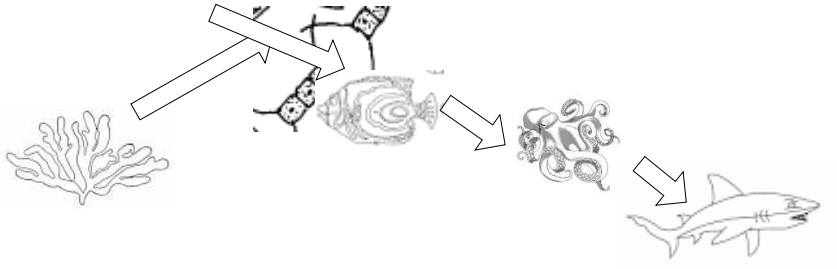
SECTION A

QUESTION 1

1.1 Which of the following gases is known as a greenhouse gas?

A Nitrous oxide
B methane
C Carbon dioxide
D Argon

1.2 The algae at the beginning of the food chain shown in the figure below is an example of a ....



A Consumer
B Decomposer
C Producer
D Heterotrophs

1.3 During which phase is heat energy absorbed by a substance?

A Liquid to gas
B Liquid to solid
C Gas to solid
D Gas to liquid

1.4 Which of the following methods is used to separate the colours in food dyes?

A Sieving
B Decanting
C Evaporation
D Chromatography

1.5 Complete the following sentence:
When water freezes ...

A It's temperature increases and volume decreases
B It's temperature decreases and volume decreases
C It's temperature decreases and volume increases
D It's temperature decreases and volume remains unchanged

(5x2=10)

1.1.	1.2.	1.3.	1.4.	1.5.

QUESTION 2
Terminology

Write down the correct word/term for each of the following descriptions in the space provided below.

2.1 The temperature at which water starts boiling

2.2 A group of chemicals which taste bitter, feel slippery on the skin and are sometimes dangerous to feel or taste.

2.3 The process where pollen are transferred between plants of the same species

2.4 Die fusion of the male and female sex cells

2.5 The phylum/division into which animals with backbones are classified in

(5x1=5)

2.1.	
2.2.	
2.3.	
2.4.	
2.5.	

QUESTION 3
MATCHING QUESTIONS

Match the term in **column A** with the correct description in **Column B**. Write down the **corresponding letter** in the middle column next to the question number that matches

	COLUMN A	**ANSWER**	**COLUMN B**
3.1.	Neon		A. Plastic, metals, glass
3.2.	Pistil		B. An example of a noble gas
3.3.	Stamen		C. Air
3.4.	Recycling		D. Male structure that produce sperms
3.5.	Mixture		E. This gas is secreted during photosynthesis
			F. Steel
			G. Female structure of a flowering plant

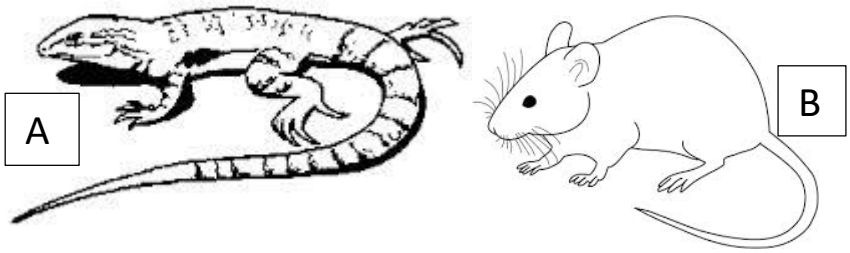
(5x1=5)

TOTAL FOR SECTION A: 20 MARKS

SECTION B

QUESTION 4
LIFE AND LIVING

Study the diagrams of two vertebrate animals below and answer the questions that follows:



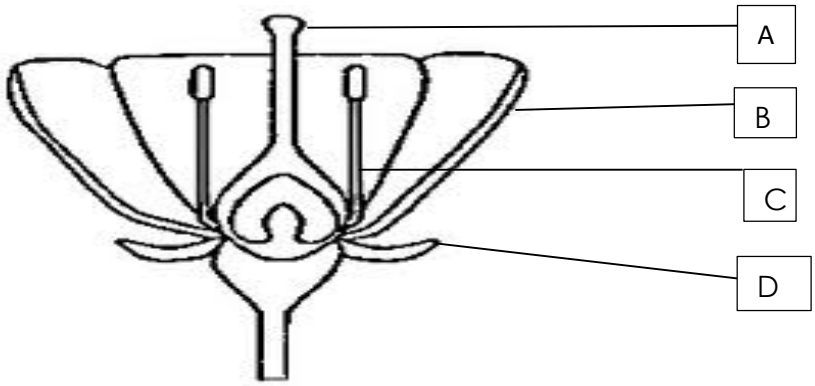
4.1 Vertebrata are divided into five (5) classes. To which two of these classes do the following animals belong? (2)

A: _____

B: _____

QUESTION 5

Study the following diagram of a flower and answwer the questions below:



Write down the letter of the structure ...

5.1 Which attracts pollinators (1)

_____

5.2 Where the sperm cells are produced (1)

_____

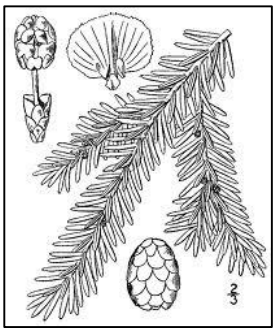
5.3 That protects the flower in the bud-form (1)

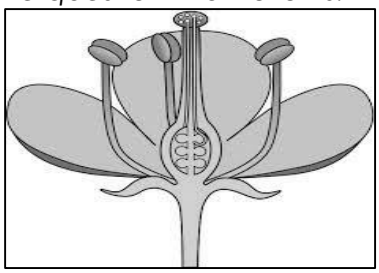
_____

VRAAG 6

The following pictures demonstrate examples of Angiosperms and Gymnosperms. Study them and answer the question that follows:

Gymnosperm





Angiosperm

6.1 Tabulate (draw a table) two differences between Gymnosperms and Angiosperms. (1+4)**[5]**

QUESTION 7

Pollination and seed dispersal

Plant A

Plant B

7.1 Name the agent of pollination as illustrated by ...

(a) Plant A (1)

..... (1)

(b) Plant B

.....

7.2 Explain how the stamen and stigma of Plant A help with the plant's method of pollination. (3)

7.3 Name two adaptations of the flowers of plant B for the method of pollination (2)

7.4 After fertilization, the ovary of flowering plants swells to form a fruit. When the seeds are matured, they need to be released from the fruit and be dispersed away from the parent plant

7.4.1 Name THREE methods of seed dispersal. (3)

7.4.2 Why, do you think, is it important that the seeds must be dispersed over a large area? (2)

[12]

QUESTION 8

8.1 Briefly explain what "puberty" means to you. (2)

8.2 Name two changes that can be experienced by boys or girls during puberty. (2)

8.3 Name two risks involved when teenagers become sexually active. (2)

8.4 Condoms are an example of a contraceptive. List two benefits of condoms (2)

[8]

TOTAL SECTION B : 30 MARKS

SECTION C
MATTER AND MATERIALS
QUESTION 9

9.1 Why do we use metals to make pots and pans? (1)

9.2 Is it possible for a metal to melt? Explain your answer. (2)

9.3 Name two (2) characteristics of plastic which make it suitable to use as a shopping bag. (2)

9.4 Huge areas of land are used to plant the trees that are then harvested to make pulp and then paper. What impact do you think this has on the environment? (1)

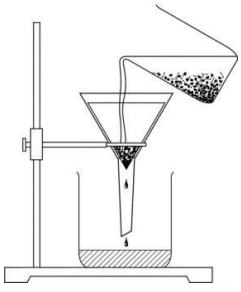
[6]

QUESTION 10

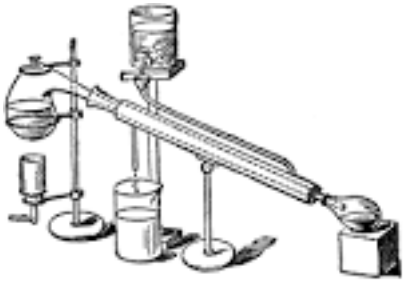
Separating mixtures

Study the diagrams below and answer the questions

A



B



10.1 Name the separation methods illustrated by A and B (2)

A:

B:

10.2 Which physical property of matter are used when using method A to separate a mixture? (1)

10.3 On what physical property of fluids do we rely on when we make use of the separation method B? (1)

[4]

QUESTION 11

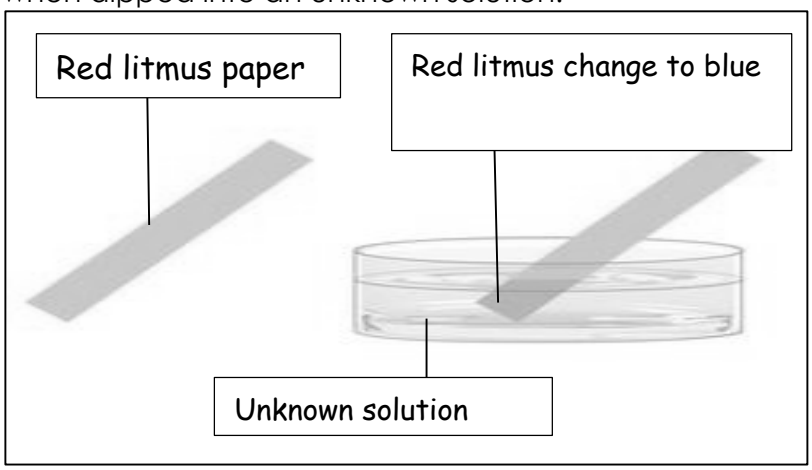
Physical properties of materials

Lead is the main ingredient of solder. Solder is melted and used to join other metal parts together. Why is lead a suitable material for soldering metals like silver and copper? (2)

QUESTION 12

Acids, bases and neutrals

Red and blue litmus paper can be used to test whether a substance is an acid, a base or a neutral.
Study the diagram below where red litmuspaper change to blue when dipped into an unknown solution.



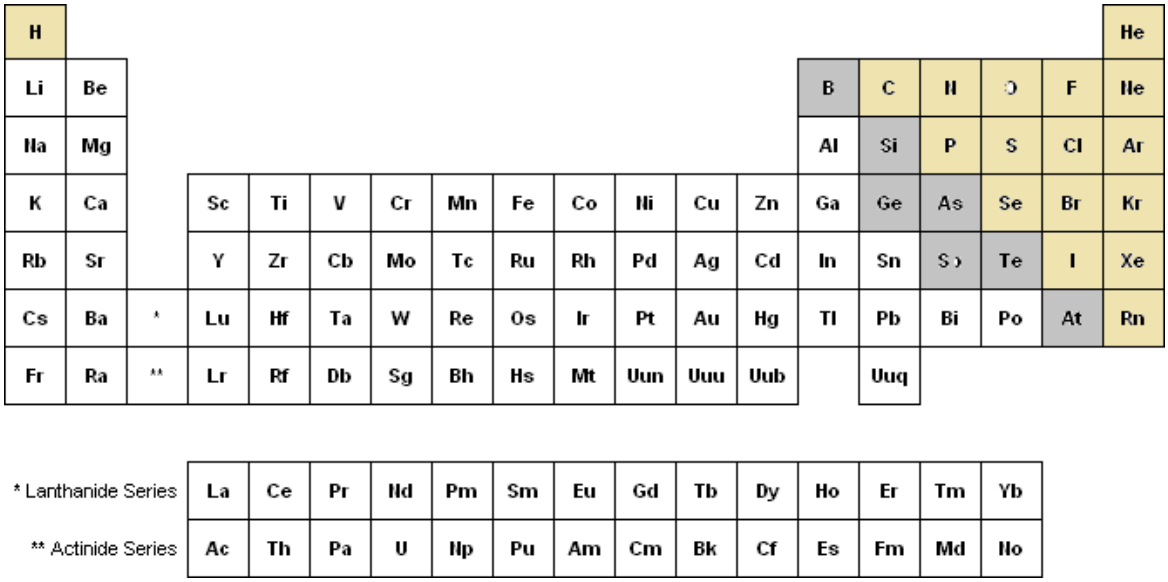
12.1 Study the illustration and decide if the unknown solution is an acid or a base. (1)

12.2 Give ONE characteristic of an acid (1)

[2]

QUESTION 13

Use the PERIODIC TABLE to answer the questions below



13.1 Complete the table below by adding the elements to their correct categories (3)

H, Si, Ca

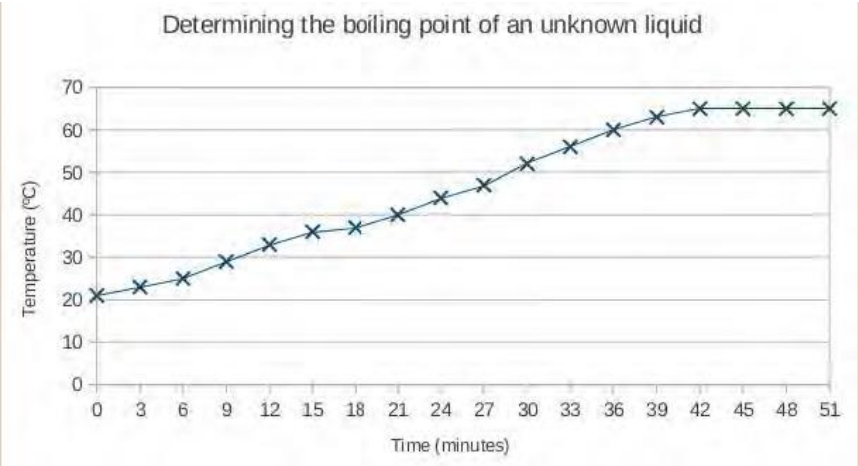
Metale		Nie-metale		half-metale	
13.1.1		13.1.2.		13.1..3.	

13.2 Give the names of the following elements. (3)

13.2.1.	**Mg**	
13.2.2.	**C**	
13.2.3	**O**	

VRAAG 14

A scientist wants to determine the boiling point of an unknown liquid. She places the unknown liquid in a beaker and carefully heats it on a hot plate.
The scientist measures the temperature of the liquid at regular time intervals (every 3 minutes). Afterwards, she draws the the following graph:



14.1 At which temperature does this unknown liquid boils? (2)

14.2 What was the temperature of the unknown liquid at the start of the experiment? (2)

14.3 How long does it take for this unknown liquid to boil? (2)

14.4 *The scientist thinks that the unknown fluid might be one of the fluids that appears in the table below. Use this list to identify the unknown fluid. Give a reason for your answer.* (2)

Liquid	Boiling Point(°C)
Acetone	56
Methanol	65
Ethanol	78
Isopropanol	83
Water	100

14.5 Choose the correct answer in brackets and underline it. (1)
The graph in this experiment is an example of a (bar graph; histogram; line graph)

14.6 Write **°C** in words (1)

(10)

TOTAL SECTION C: 30 MARKS

GRAND TOTAL: 80