General Science

Test

Section A

Question 1

Choose the correct answer from the various options provided and only write down the letter next to the question number on your answer sheet.

1.1 Which one of the following is not a mixture?

A. Air
B. Sea water
C. Table salt crystals
D. Sulphur and iron filings in a test tube

1.2 Which factors influence climate change?

A. Continental shift
B. Migration of animals
C. Ice
D. Rain

1.3 How long does it take the earth to orbit its own axis once?

A. 18 hours
B. 1 day
C. 34 hours
D 366 days

1.4 Which form of energy does a flashlight's cell possess?

A. Heat
B. Light
C. Chemical potential
D. Elastic potential

1.5 To increase the current in an electrical circuit, you must increase the amount of…..?

A. Cells in parallel
B. Cells in series
C. Light bulbs in series
D. Light bulbs in parallel

1.6 If the cost of electricity is R0,28 Kw/h , how much will 25Kw cost?

A. R57,50 B. R48,00

C. R5,75 D. R575,00

1.7 To test for oxygen, you can use one of the following:

A. A burning match B. Bright lemon water

C. Litmus paper D. A glowing splinter

1.8 Which characteristic of matter is illustrated by boiling water in a kettle?

A. Diffusion B. Pressure

C. Division D. Brown's movement

Question 2

Provide one word for…..

1. The smallest parts of an element that still have the features of an element.
2. The process used to break down sodium permangate.
3. Subatomic particles that move around the core of an atom.
4. Subatomic particles with neutral electrical charge.
5. The amount of hydrogen atoms in water.
6. A reaction through which a compound is broken down.
7. Molecules with two atoms.
8. Substances that can be divided by a physical process.
9. Consists of atoms of the same sort.
10. Subatomic particles with a positive charge.

Question 3:

Write down only the letter of the term in column B that fits with the description in column A. Write the letter down next to its corresponding number.

For example: 3.6 G

COLUMN A	COLUMN B
3.1 An electrical circuit that allows a current to flow in an unplanned circuit.	A. Electrical current

3.2 A device that opposes the flow of a current.	B. Electrolysis
3.3 A device used to protect the components in a circuit.	C. Short circuit
3.4 The flow of electrons in a circuit.	D. Fuse
3.5 The process through which ionic substances are broken down into smaller substances when an electrical current flows through an ionic overlay.	E. Resistor
	F. Electrons

Question 4:

Choose the best suited term or word to declare each of the following statements as true. Write down only the correct word.

4.1 (Electrons/Protons) can move from an atom.

4.2 A circuit is a system of (exchange/transferral) of energy.

4.3 To make a device work, a circuit must be (open/closed).

4.4 Light is (absorbed/reflected) by a dark surface.

4.5 In the retina of the eye light energy is converted into (potential energy/electrical nerve-impulse).

Section B

Question 5

Whelks feed on mussels and duck shells. Crabs feed on whelks, periwinkle, mussels and waste. Duck shells feed on plant and animal plankton waste. Mussels also feed on plant and animal plankton. Periwinkle feed on sea grass. Animal plankton feed on plant plankton. Sea grass and plant plankton both produce nourishment through photosynthesis. Starfish feed on mussels and whelks.

5.1 Name one herbivore on this rocky coast.

5.2 What is the main producers on this rock?

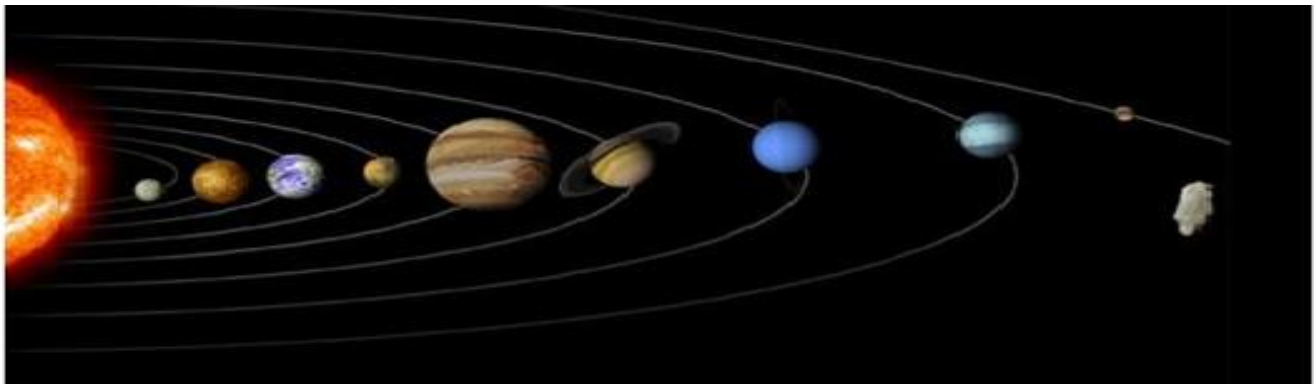
5.3 Identify two omnivores in this eco-system and provide a reason for your answer.

5.4 Design a food chain with **four** organisms from the abovementioned information.

Question 6

Study the diagram below and answer the questions that follow:





6.1 What are the names of planets 2, 3, 6 and 7?

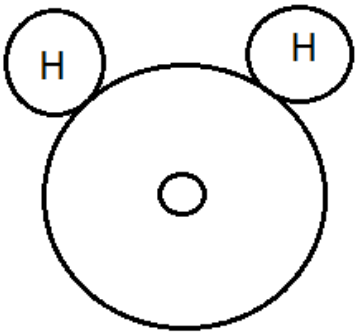
6.2 Why are planets 1 and 4 called terrestrial planets?

6.3 Which one of the 8 planets is the smallest?

6.4 What is the difference between asteroids and comets?

Question 7

The diagram below shows a model of a molecule.



7.1 Indicate how many hydrogen atoms is bound in the molecule.

7.2 Indicate how many oxygen atoms is bound in the molecule.

7.3 What is the name of this molecule?

7.4 What does this substance change into when it becomes encased in ice?