

SECONDARY SCHOOL ANNUAL EXAMINATIONS 2004

Educational Assessment Unit – Education Division

FORM 2

INTEGRATED SCIENCE

Time 1hr 30 min

Name _____

Class _____

ANSWER ALL QUESTIONS

1) You can catch diseases from other people.

a) Underline the **three** diseases which you can catch from other people.

toothache

flu

broken arm

AIDS

measles

3 marks

b) Rachel and Claire made a poster about things that prevent disease.
Complete the poster below by writing the correct phrases from the list:

Washing hands

Eating less sugar

Not smoking

Sneezing into your handkerchief

Eating enough fibre

Doing regular exercise

Keeping Healthy



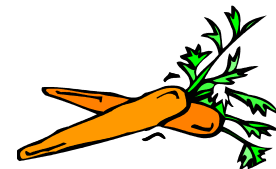
.....
reduces the spread of colds and flu

.....
reduces the risks of food poisoning

.....
reduces the risks of lung cancer



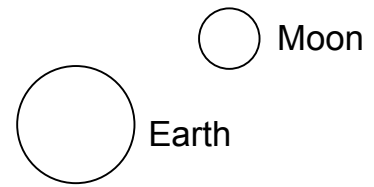
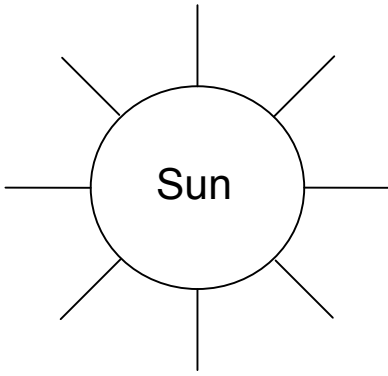
.....
reduces the risks of tooth decay



.....
reduces the risks of constipation

.....
reduces the risks of a heart attack

2) a) The drawing shows the Earth, the Sun and the Moon.



- i) **Shade** the part of the Earth where it is **night**. 1 mark
- ii) How long does the Earth take to go once round the sun? _____ 1 mark
- iii) How long does the Moon take to go once round the Earth? _____ 1 mark

b) Peter is making a model to show how the Sun, Earth and Moon are arranged. Choose the things he should use by putting a tick next to **one** thing in **each** column in the following table.

Sun	Earth	Moon
cushion	tennis ball	glass
cardboard box	bag of sugar	sugar cube
football	sugar cube	football
apple	grape	table-tennis ball

3 marks

c) Match each fact in the table below to one of the planets. Write the number in the middle column.

fact

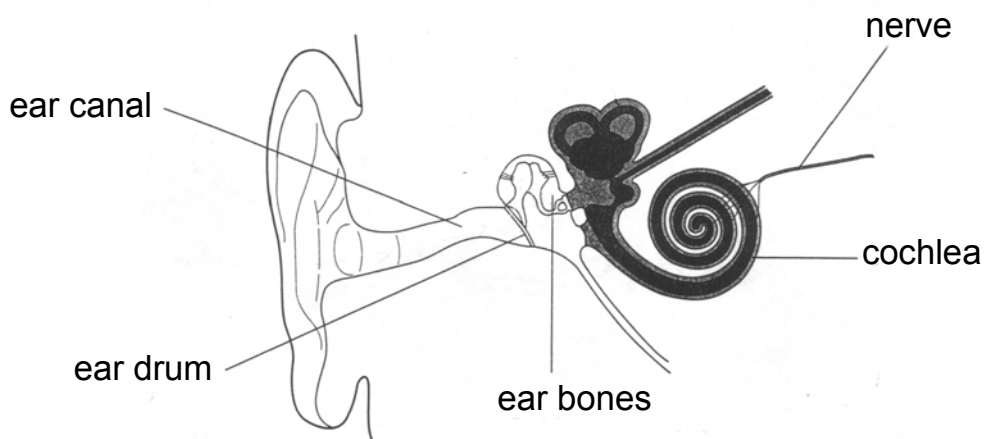
- 1. The hottest planet
- 2. Has beautiful rings round it
- 3. Has living things on it
- 4. The smallest planet

planet

- Earth
- Pluto
- Saturn
- Venus

4 marks

3) This is a diagram of the ear.



In the table below write the part of the ear which does each of the following jobs.

Job	Part of the ear
a) This sends messages to the brain.	
b) Sound waves go down this tube.	
c) These 3 small bones pass on vibrations from the ear drum.	
d) This is a coiled tube which sends vibrations to the nerve.	
e) This is a tight skin. Sound waves make it vibrate.	

5 marks

4) From the words below write down the words that matches each of the sentences below.

vibration

image

vacuum

fire

- Light can travel through this.
- This is a source of light.
- This is seen in a mirror.

3 marks

5) The following is a list of changes.
Underline the ones which show a **chemical change**.

- Diluting orange juice with water
- Heating soup
- Burning petrol in a car engine
- Smoking a cigarette
- Eating a chocolate
- Iron going rusty
- Respiration in the body
- Breaking glass

5 marks

- 6) a) Vinegar is sometimes put on chips. It has a **sour taste**.
 What does the taste tell you about vinegar? Tick the correct box.

It contains salt It is an acid It contains sugar

1 mark

- b) Litmus can be used to test for acids and alkalis.
 It is red in acids and blue in alkalis.

i) What colour is it in lemon juice? _____

2 marks

- ii) Complete the sentence below.
 Substances, which change colour when you add acid or alkali, are called

2 marks

- c) The labels have fallen off two bottles.
 The labels say 'Distilled Water' and 'Sulphuric Acid'.



Why should you **not** taste the liquids to see which is which?

_____ 1 mark

- 7) Albert tested five substances (**A, B, C, D, E**) with universal indicator and found their pH number.
 He recorded the following results.

substance	A	B	C	D	E
pH number	3	7	6	9	1

a) Which of the above **substances** are acids? _____

3 marks

b) Which of the above substances is the **strongest acid**? _____

1 mark

c) Which of the above substances is **an alkali**? _____

1 mark

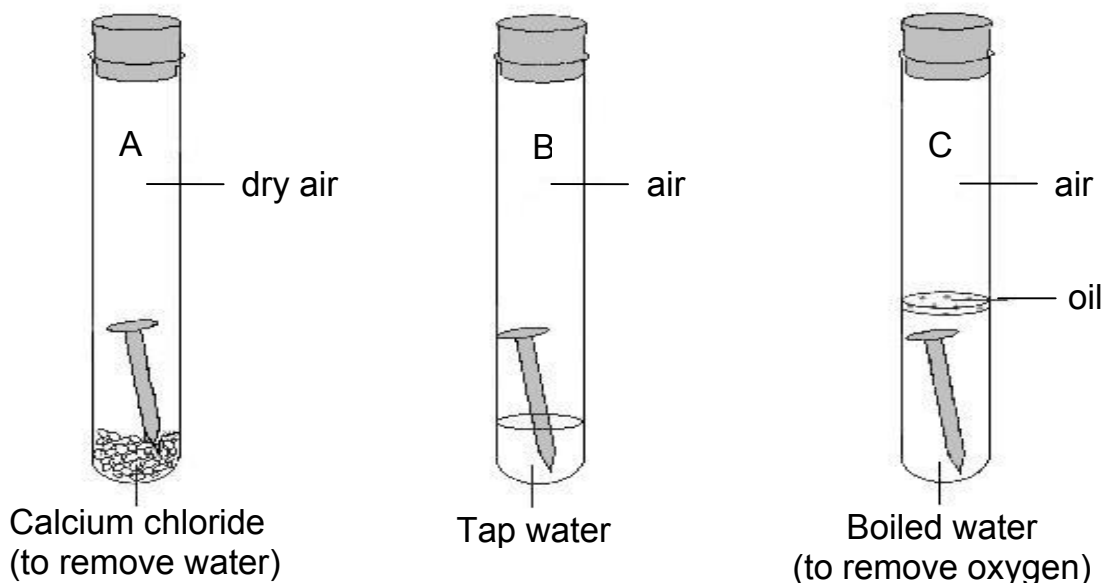
d) Pure water is **neutral**. Which of the above substances could be pure water?

2 marks

e) Which **one** of the substances given in the table above would be best to **neutralise** extra acid in the stomach?

2 marks

8) Matthew carried out an experiment on **rusting**.
 He placed 3 shiny iron nails in sealed test tubes **A, B, C** as shown in the diagram.



a) i) In which **two** test tubes will the iron nail **not** rust? _____ 2 marks

ii) Tick **one** correct answer.

Iron rusts when there is only oxygen.

Iron rusts when there is oxygen and water.

1 mark

b) Many parts of a bicycle are made of iron. These parts can rust easily.
 Give two ways to stop these parts rusting.




1. _____ 2. _____ 4 marks

9) There are 3 things needed for burning: **fuel + heat + oxygen**.

To put out a fire, you have to remove **one** of the above things

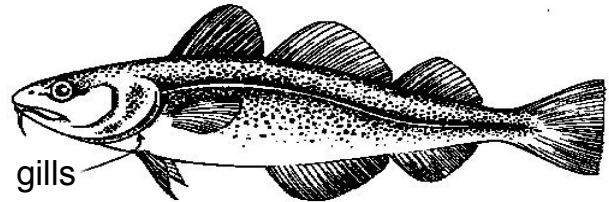
The pictures below show how you can put out different types of fires.

a) Draw lines to link each picture to 'what is removed' in each fire.

Fire	How to put it out	What is removed
Chip pan on fire 	Cover it with a damp cloth	heat
bonfire 	Throw cold water on it	fuel
Woodland on fire 	Cut down some of the trees ahead of the fire	air

3 marks

10) The drawing shows a fish called a cod.



Match each fact about the cod, to the way it helps the cod to survive.

Write the correct number in the middle column.

Fact about the cod

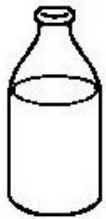
- 1) it has gills
- 2) it has a tail and fins
- 3) it's body is covered with scales
- 4) it lays many eggs

How it helps the cod to survive

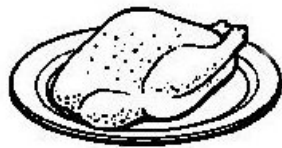
- to protect the body
- so that some young cod live
- to breathe in water
- to move easily in water

4 marks

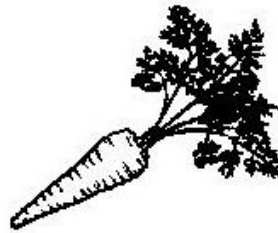
11) A balanced diet contains a variety of foods. The drawing shows 4 different foods.



Milk



chicken



carrot



vegetable oil

a) Which of these foods is the best source of:

- i) fibre? _____
- ii) calcium? _____
- iii) protein? _____

3 marks

b) Which of the above food does **not** contain fat? _____

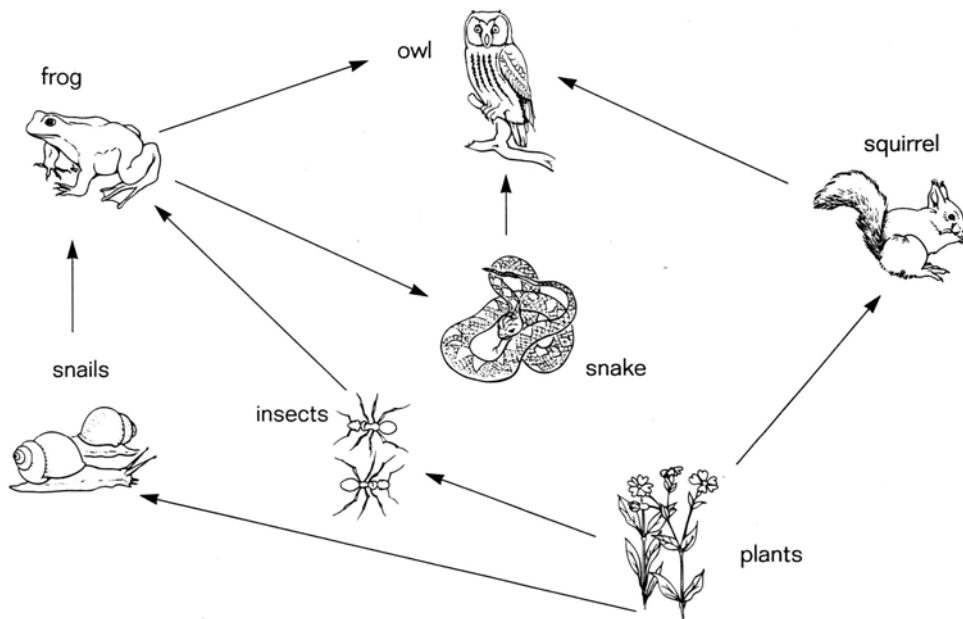
2 marks

c) Write **true** or **false** near each of the following statements.

- i) We need proteins to grow and repair the body. _____
- ii) Only carbohydrates give us energy. _____
- iii) We need a lot of vitamins every day. _____
- iv) Water is not very important in our diet. _____
- v) A lot of fat can make you overweight. _____
- vi) Iron is a mineral needed for healthy blood. _____

6 marks

12) Look at the food web then answer the questions that follow.



a) Write **two** food chains found in the above food web.

1. _____
2. _____

4 marks

b) Which **predator** eats the squirrel and the frog? _____

1 mark

c) Name one **prey** which is eaten by the frog? _____

1 mark

d) How many animals eat plants? _____

1 mark

e) What happens to the snakes if all the frogs die?

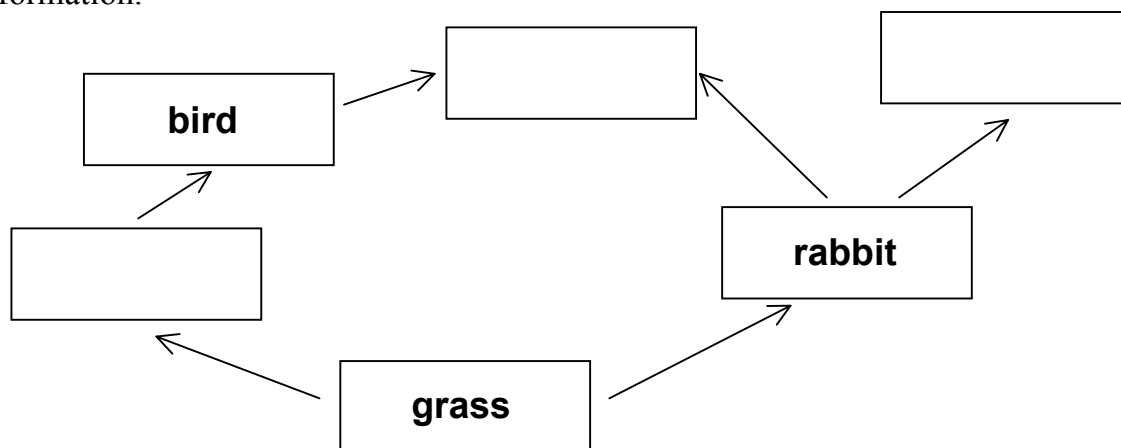
2 marks

13) Rita found the following information.

Foxes eat rabbits. The eagle eats rabbits and birds.

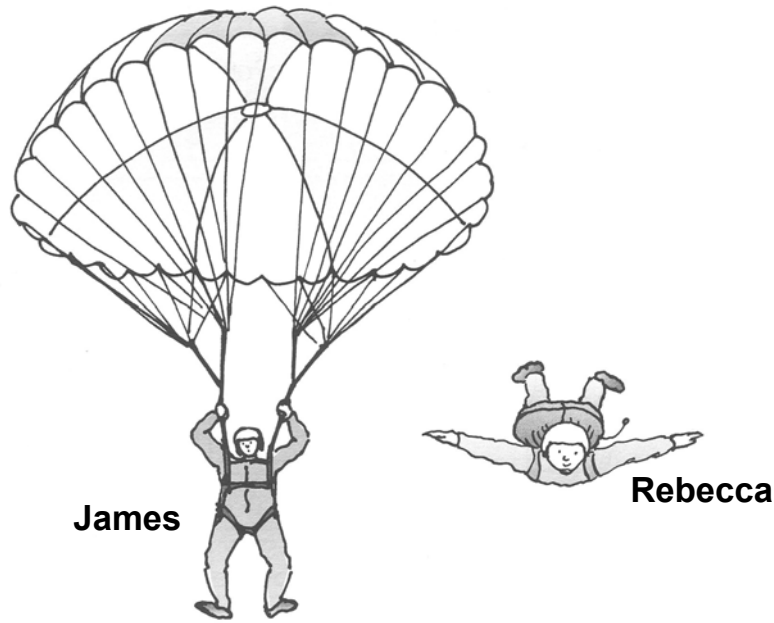
These birds eat snails. Rabbits and snails eat grass.

Fill in the missing animals in the diagram below to form a food web showing the above information.



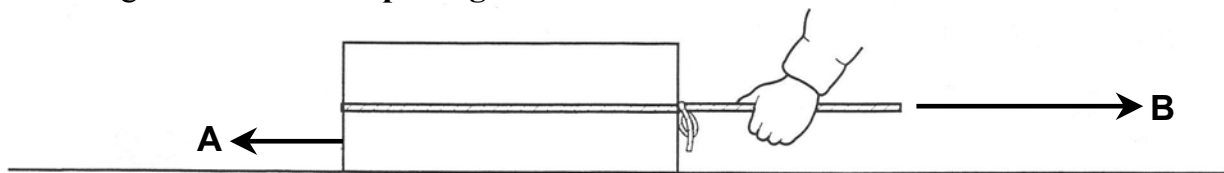
6 marks

14) Look at these pictures of James and Rebecca parachuting.



- a) Who will fall **faster**? _____ 1 mark
- b) Which **force** makes these people fall? _____ 2 marks
- c) Draw an **arrow** on the picture to show the force which makes Rebecca fall. 1 mark
- d) Draw an **arrow** on the picture to show the force which slows James down when he opens the parachute. 1 mark

15) The diagram shows Doris **pulling** a box on the table.



- a) Which arrow shows the **pulling** force? _____ 1 mark
- b) What is the name of the other force? _____ 2 marks
- c) Which of the two forces is bigger? _____ 1 mark
- d) Will the box move? _____ 2 marks
- e) Are forces **A** and **B** balanced or unbalanced? _____ 2 marks