

JUNIOR LYCEUMS ANNUAL EXAMINATIONS 2001
Educational Assessment Unit – Education Division

FORM 2

INTEGRATED SCIENCE

Time 1hr 30 min

Name _____

Class _____

ANSWER ALL QUESTIONS

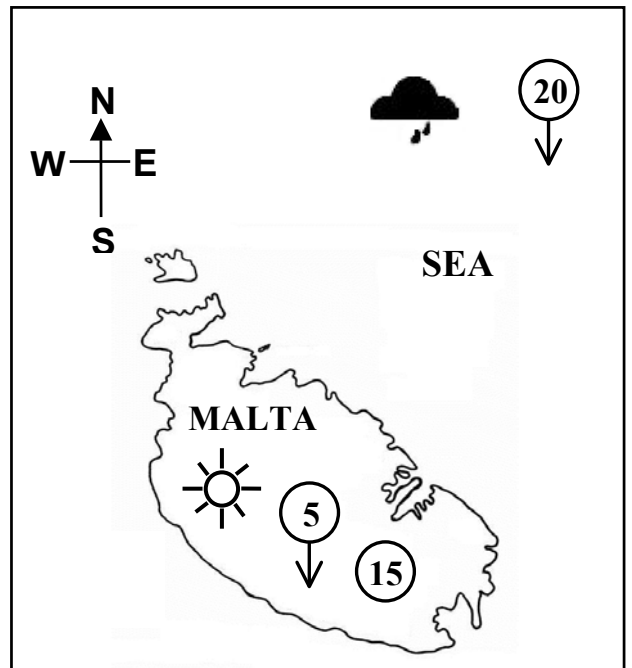
1. Look at the weather map of Malta, then answer the questions that follow:

- a. Explain **in words** what the **weather** is like **over Malta**.

3 marks

- b. Write down how the **weather** over Malta will **change in a few hours time**.

2 marks



- c. What **instrument** would you use to measure the **windspeed**?

1 mark

- d. What **season** of the year is it likely to be?

1 mark

- e. Give **one** reason for your answer?

1 marks

2. Here are 4 living things.

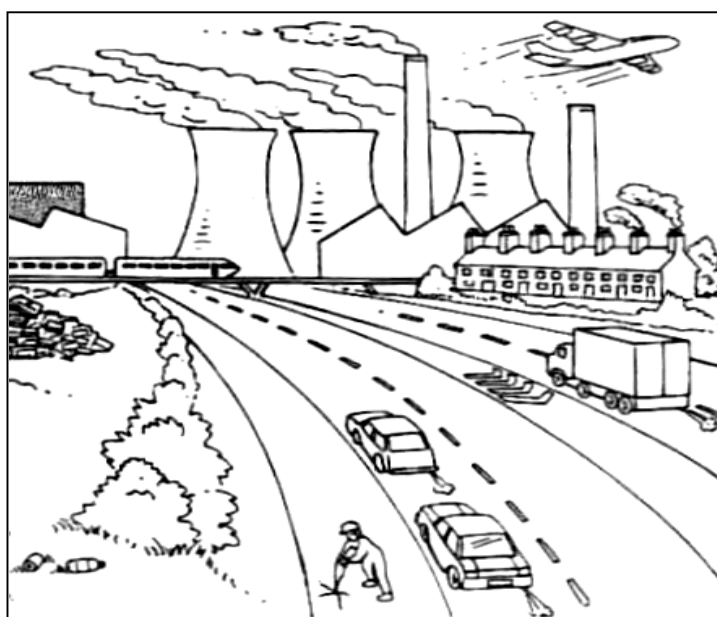
human lion dolphin cactus plant

a. Write down the **living thing**, which does each of the following:

- i. Lives in water _____
- ii. Lives in the jungle _____
- iii. Grows in the desert _____
- iv. Causes pollution _____

4 marks

b. This picture below shows a place where there is a lot of **pollution**.



List **3 things** that are causing pollution and name the **type of pollution** they are causing.

Things causing pollution	Type of pollution

6 marks

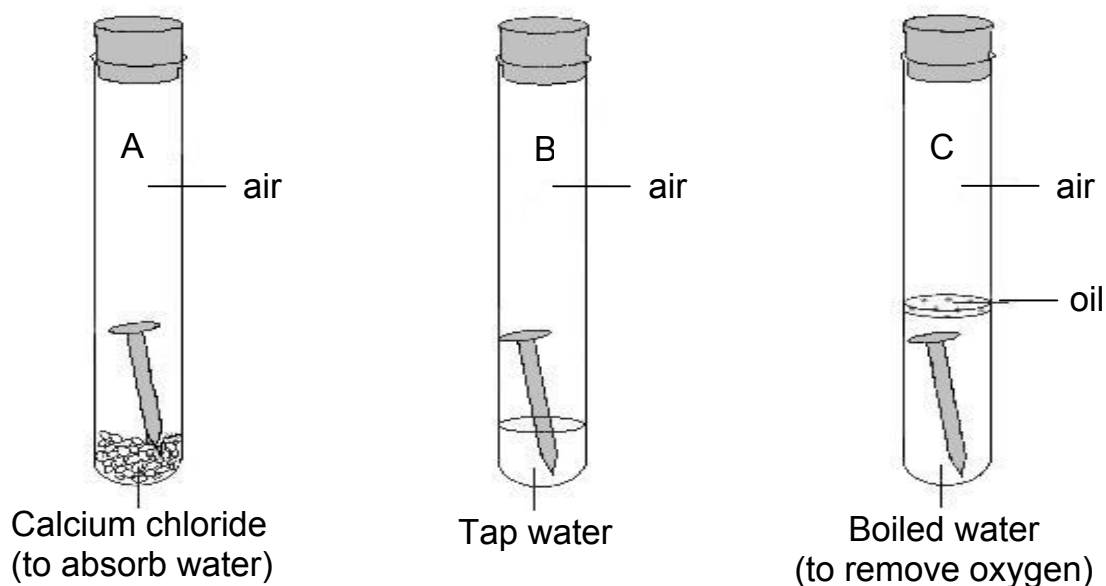
c. Name one **type of pollution** that you see on your journey to school each day and say what is **causing** it.

Type of pollution: _____

Cause of pollution: _____

2 marks

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



- a. Which nail will **rust**?

1 mark

- b. Explain why the other nails did **not** rust?

2 marks

- c. Which is the best way **to prevent** the following objects from **rusting**?

- i. A bicycle chain _____
 ii. Car body _____
 iii. Paper clip _____

3marks

- d. Water pipes were once made of iron.
Why are new houses having plastic water pipes?

2 marks

- e. Is rust an **element**? Why?

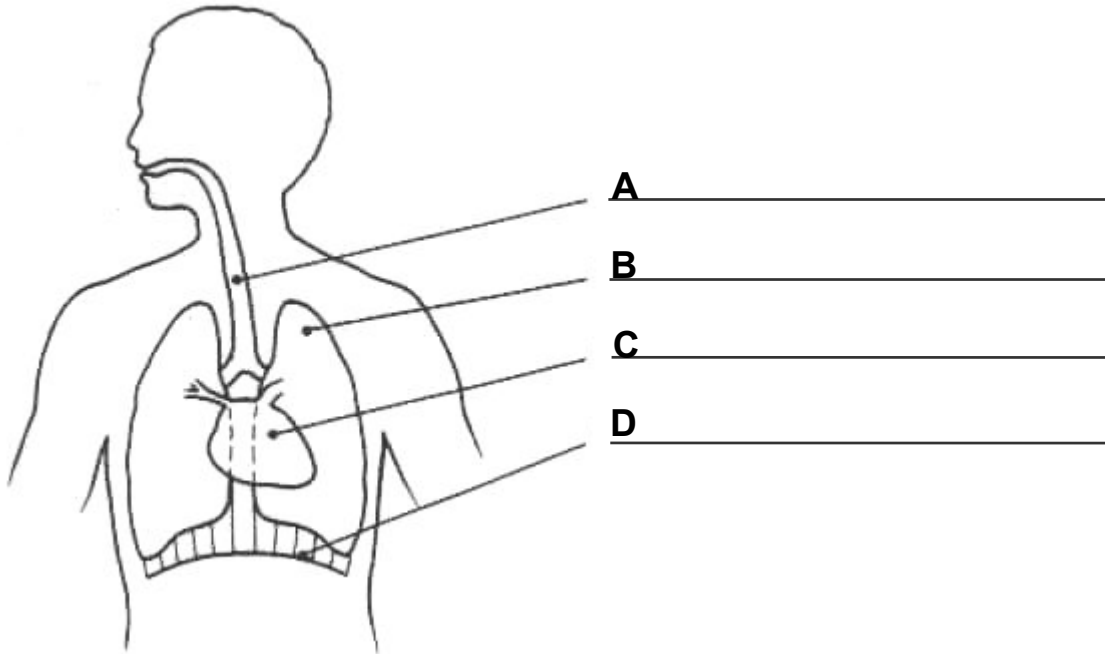
2 marks

- f. Name **2 elements** and write their **symbol**.

element	symbol

4 marks

- 4 The diagram shows the **organs** we have in our **chest**.
a. Label the diagram.



4 marks

- b. What **job** does **C** do in your body?

_____ 1 mark

- c. What is the name of the **body system** which has **B** as the main organ?

_____ 1 mark

5. **Microbes** are very small living things.

- a. Name **2** types of microbes.

_____ 2 marks

- b. **Harmful microbes** can cause **infections**. Our body **defends** itself from these infections.
Name **2** parts of the body that it uses to defend itself from microbes.

_____ 2 marks

- c. Nowadays **microbes** are used in technology to make **food, medicines** and **fuels**.

- i. Name a microbe used to make bread. _____

1 mark

- ii. Name a medicine made from microbes. _____

1 mark

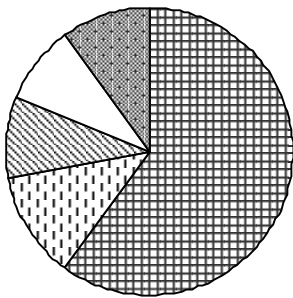
6a. Give **3** reasons **why** we eat food.

3marks

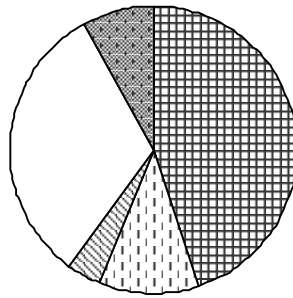
b. Food is made up of the **basic food substances**.

Look at the 3 pie charts showing the **basic food group** in 3 **different** cereals.

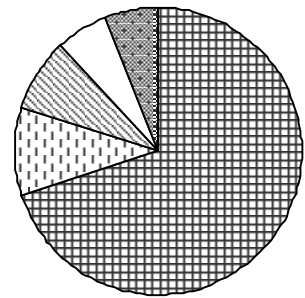
Muesli



Fibran flakes



Sunflakes



Key



carbohydrates



proteins



fat



fibre



others

i. Which basic **food group** is the largest in **all 3** cereals?

1 mark

ii. Which **cereal** contains **most fibre**?

1 mark

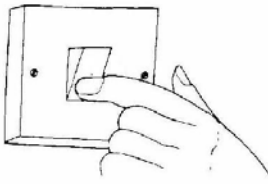
iii. Why do we need **fibre** in our **daily diet**?

2 marks

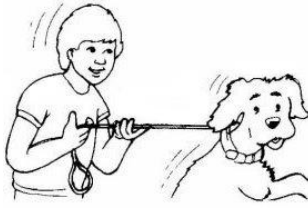
iv. We need a **balanced diet**. What do we mean by a **balanced diet**?

1 marks

7. The following pictures show some **everyday forces**.



i.



ii.



iii.

a. Name the **forces** used in:

Picture i. _____

Picture ii. _____

Picture iii. _____

3 marks

b. Which **one** of the above pictures shows a **non-contact force**?

2 marks

c. Fill in using the following words:

speed direction shape

Forces can change the size or _____ of an object. They can change the

_____ of a moving object, or change the _____ of a moving object.

3 marks

d. **Friction** is a **force**, which tries to **stop** objects moving.

Write down **where** friction takes place in the following activities.

One example has been done for you.

When a car is stopping friction takes place between the **tyres** and the **road**.


i. When a parachute is floating down friction takes place between the _____ and the _____.

ii. When writing on a whiteboard friction takes place between the _____ and the _____.

iii. When an ice skater is skating friction takes place between the _____ and the _____.

6 marks

8. Substances are made up of **particles**.

a. Tick  the **correct** statements about particles.

i. Particles in a gas are not moving.



ii. Particles are tiny.



iii. Particles are closer together in a solid than in a liquid.



iv. Particles in a solid move as fast as in a gas.



v. Particles are spaced out in a gas.



vi. Particles move more when heated.



6 marks

b. Theresa wanted to find out what happens when **solids** are **heated**.

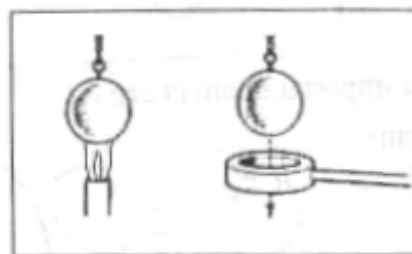
She did the following experiment.

She heated the metal ball.

Then she tried to pass it through the ring.

i. Does the ball pass through the ring?

_____ 1 mark



ii. What has happened to the **volume** of the ball?

_____ 1 mark

iii. Explain what has happened to the **particles** inside the metal ball.

_____ 2 marks

iv. Draw diagrams to show the **spacing** of the **particles** of the metal ball:

a. before heating.



b. after heating



4 marks

9. Here is a list of some **materials** used in building a house.

brick **sand** **plastic** **cement** **wood**
copper **glass** **stone**

a. Fill in the table using the above building material

Natural material	Man made material

8 marks

b. Choose a **material** from above which is used to make

i. doors _____ 1 mark

ii. pipes _____ 1 mark

c. What can **copper** be used for in a house?

_____ 1 mark

d. Why is **copper** used for this **job**?

_____ 1 mark

10. A **fuel** is a substance which is **burned** to give off **energy**.

a. Name a **fuel** which can be used in cars.

_____ 1 mark

b. What **fuel** does your **body** use?

_____ 1 mark

c. Underline **2** fuels which may **run out** in the next few hundred years.

coal **wind** **food** **oil**

4 marks