

SECONDARY SCHOOL ANNUAL EXAMINATIONS 2008
DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION
Educational Assessment Unit

FORM 1

INTEGRATED SCIENCE

Time 1hr 30 min

Name _____

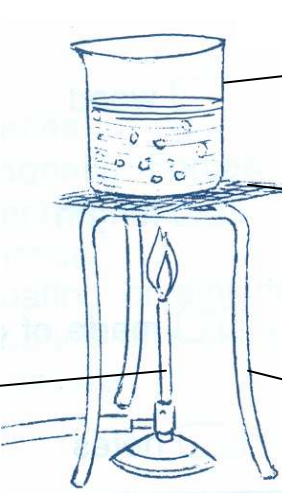
Class _____

ANSWER ALL QUESTIONS

1. **The diagram below shows some apparatus used in some experiments.**

Answer the following questions.

a. Fill in the boxes with the name of the apparatus.



The diagram shows a Bunsen burner with a flame heating a beaker of water. The beaker is supported by a tripod stand. Four boxes with labels i, ii, iii, and iv are connected to different parts of the apparatus by lines.

- Box i: points to the beaker.
- Box ii: points to the tripod stand.
- Box iii: points to the Bunsen burner.
- Box iv: points to the gas inlet tube.

4 marks

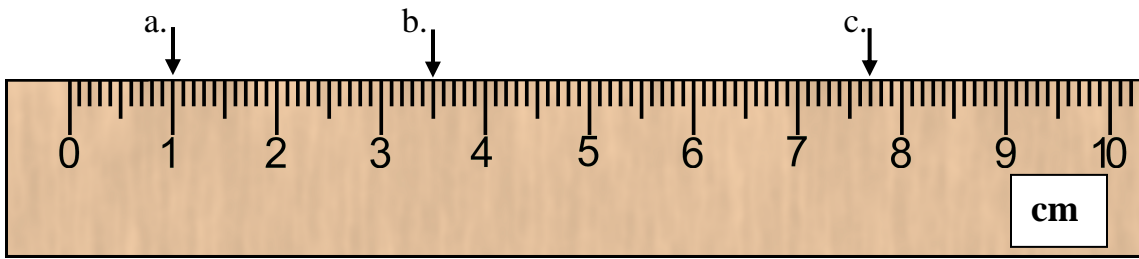
b. Safety is very important when doing experiments.
Write down TWO important safety rules.

_____ 2 marks

2 Write down what each of these instruments is used to measure:

- a. a ruler is used to measure _____ . 1 mark
- b. a thermometer is used to measure _____ . 1 mark
- c. a measuring cylinder is used to measure _____ . 1 mark
- d. a balance is used to measure _____ . 1 mark

3 What is the reading at each of the arrows a, b and c?



a = _____

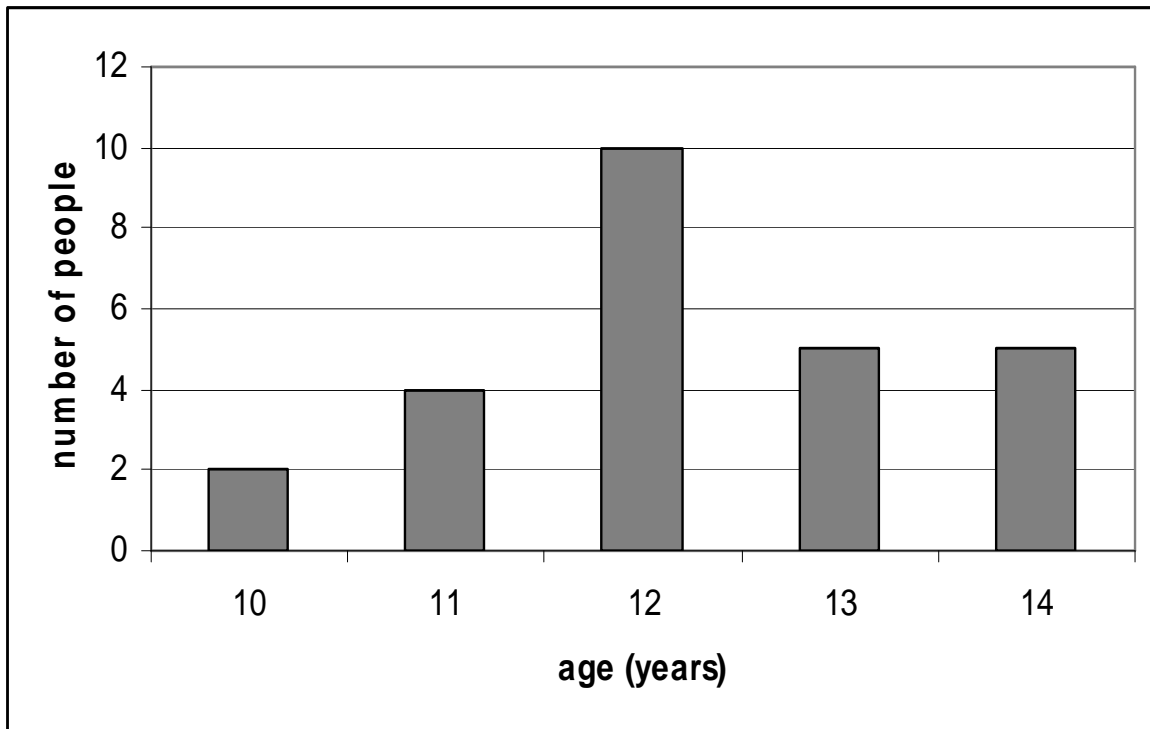
b = _____

c = _____

3 marks

4. **Sue and Terri did a survey in their youth club.**

This bar-chart shows the ages of people in their club:



a. How many people are aged 12? _____

1 mark

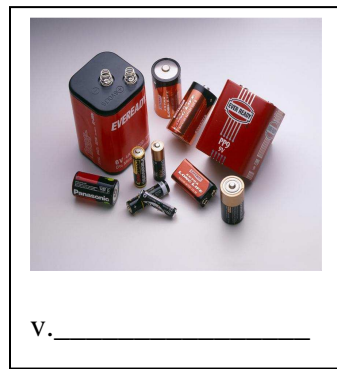
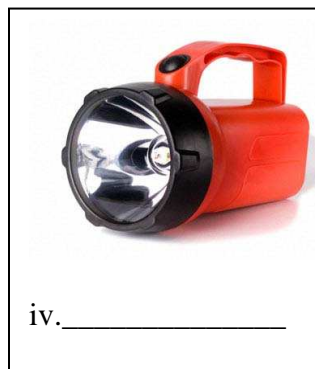
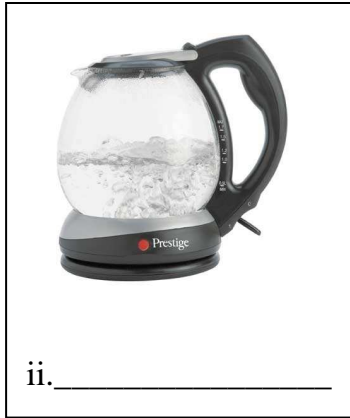
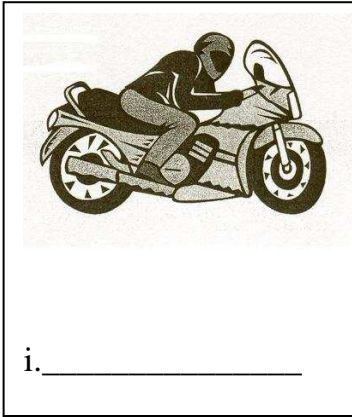
b. How old is the youngest person? _____

1 mark

c. How many people are in the youth club? _____

1 mark

5 a. Which main form of energy do these pictures show?





5 marks

b. Write YES or NO in each blank space in the table to show whether each energy source is a fossil fuel or not and whether the energy coming from these sources is renewable or not. One example has been done for you.

Fuel	Fossil fuel?	Renewable?
Solar energy	no	Yes
Coal		
Wind energy		
Oil		
Natural gas		

8 marks

- c. Machines are able to change one form of energy into another form. Fill in the table by writing **the main starting energy form** and **the main finishing energy form**.

	Starting energy	Finishing energy
	Electrical energy	
		

1 mark

2 marks

6. Fill in the blanks, choosing words from the following list.

solvent solute dissolves soluble solution

- a. When salt is mixed with water, the salt _____ in the water. 1 mark
- b. Salt is _____ in water. 1 mark
- c. The water is called the _____ . 1 mark
- d. The mixture is called a _____ . 1 mark

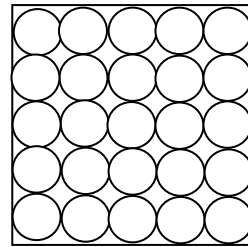
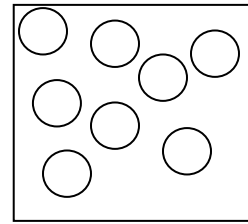
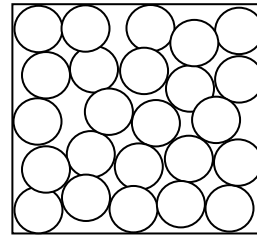
7. i. Here are some methods of separating mixtures:

filtering evaporating distilling
dissolving and filtering chromatography

Write down which method you would use for each of these jobs.

- a. Separating sand and water. _____ 1 mark
- b. Getting salt from sea water _____ 1 mark
- c. Separating mud and water _____ 1 mark
- d. Separating different colours mixed together _____ 1 mark
- e. Obtaining water from sea water _____ 1 mark
- ii. A tea-bag is a filter. Write down what things you think it separates. 2 marks

8 Match each of the picture on the left with the correct arrangement of the particles on the right by drawing a line between them.



3 marks

9. Complete the following sentences. Use the words below to fill in the blanks.

bones snails horses rabbits backbones
soft sparrows without beetles

Vertebrates are animals which all have _____. They have _____ inside their bodies. Examples of vertebrates are _____, _____ and _____.

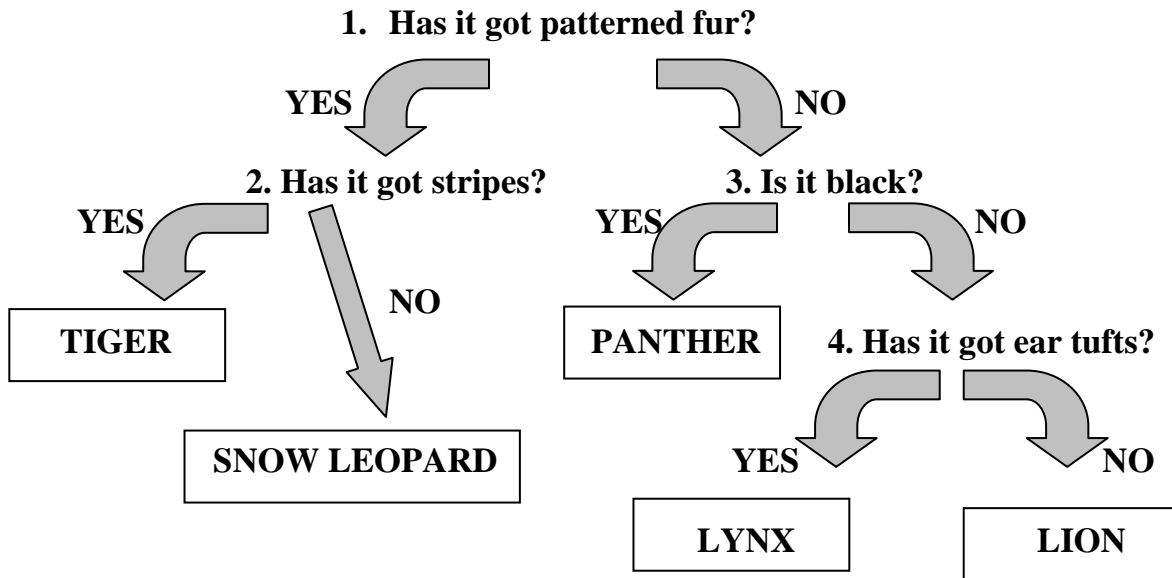
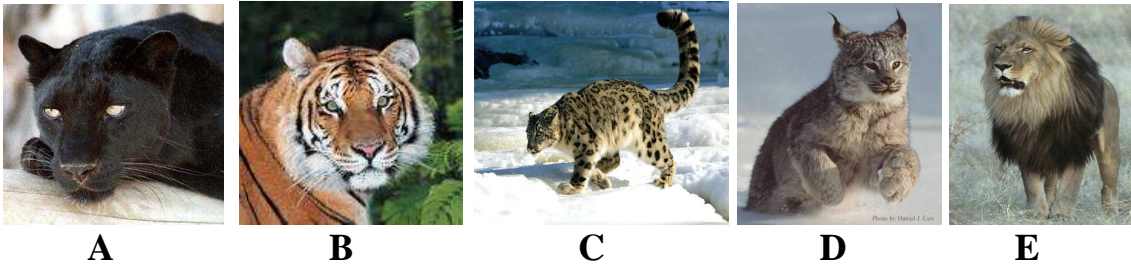
Invertebrates are animals _____ backbones which often have very _____ bodies. Examples of invertebrates are _____ and _____.

9 marks

10. We can find what an organism is by using a key.

Here is a key you could use on a visit to a zoo to help you identify members of the cat family.

- a. Identify the animals in pictures A to E by answering YES or NO to the questions until you arrive at the name of the animal.
Write your answers below.



- A. _____ 1 mark
- B. _____ 1 mark
- C. _____ 1 mark
- D. _____ 1 mark
- E. _____ 1 mark

Use the cat key to help you describe the following animals.

- a. A panther is _____ 1 mark
- b. The fur of a tiger has _____ 1 mark
- c. A lynx has _____ 1 mark
- d. A snow leopard has fur _____ 1 mark

11a Fill in the blanks choosing words from the following list.

cells animals body plants

- i. Animals and _____ are living things. 1 mark
- ii. Living things are made from _____ . 1 mark
- iii. There are millions of cells in your _____ . 1 mark

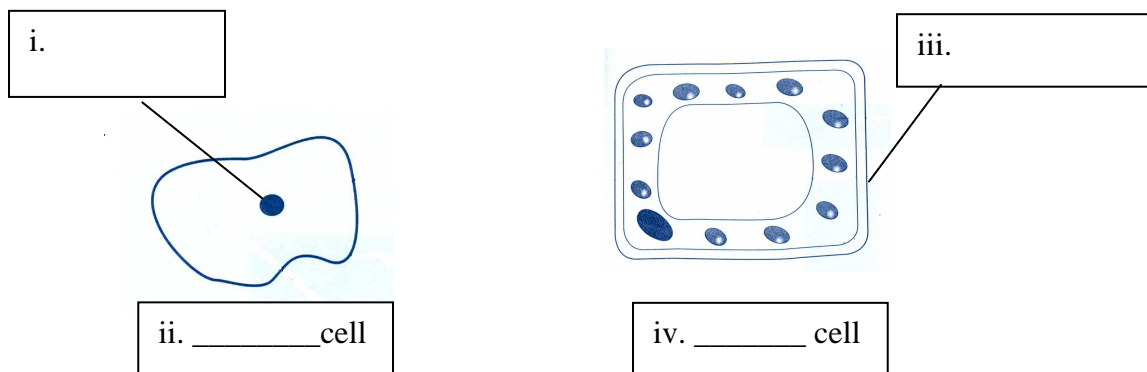
b. Write down the word which goes with each of these.

tissue nucleus chloroplast cell wall

- i. Controls what a cell does: _____ 1 mark
- ii. Takes in the energy in sunlight: _____ 1 mark
- iii. A group of similar cells: _____ 1 mark

c. These diagrams show two cells. Put the following labels in their place.

animal plant nucleus cell wall



4 marks

d. Write down TWO things which are in a plant cell but not in an animal cell.

2 marks

e. From the list of words below choose the correct one for each of these.

- i. Sperms are made in these: _____ 1 mark
- ii. Eggs are released from these: _____ 1 mark
- iii. A sperm joining with an egg: _____ 1 mark

ovaries testicles fertilization menstruation

12. Look at the following list of words.

carbon dioxide **sulphur dioxide**
oxygen **copper oxide** **carbon monoxide**
nitrogen **carbon**

a. Name THREE elements from the above list and write their symbol.

Name of element	Symbol
1.	
2.	
3.	

6 marks

b. Name ONE compound from the words above. _____

1 mark

c. Give the TWO compounds which are both formed from the same two elements.

1. _____

2. _____

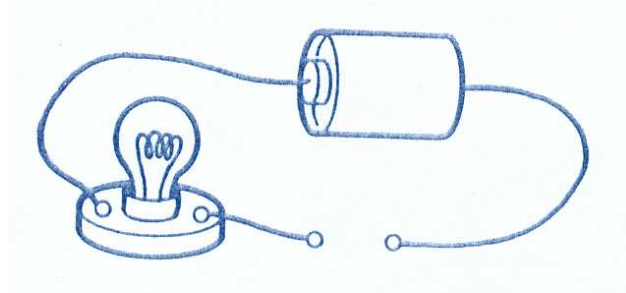
2 marks

d. Elements are divided into **metals** and **non-metals**. Which TWO of the following are properties of metals. Tick the correct answers.

- They are white
- They are shiny
- They are good conductors of electricity
- They are strong

2 marks

13. Sara made this circuit to test which things conduct electricity. Choose the 4 things from this box that would complete Sara's circuit. Underline your answers.



Glass	copper
rubber	iron
wood	aluminium
steel	plastic

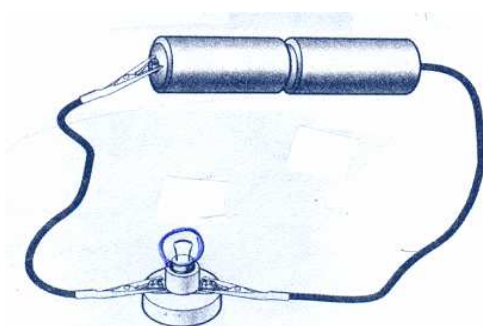
4 marks

14. a It is much quicker and easier to make drawings of circuits if we use symbols for the components. Complete the following table

Name	Bulb	Switch	wire	Cell
Picture				
Symbol				

4 marks

- b Use symbols to draw a diagram which represents the circuit below.



2 marks

END OF PAPER. PLEASE CHECK YOUR WORK AGAIN