SECONDARY SCHOOLS ANNUAL EXAMINATIONS 2001
Educational Assessment Unit – Education Division

FORM 1 **INTEGRATED SCIENCE** **Time 1 hr 30 min**

Name ..... **Class** .....

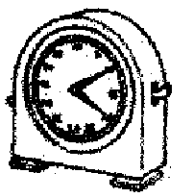
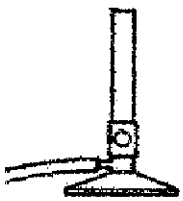
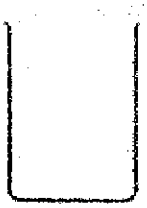
1. (a) Christine sees the following **signs** on two chemical bottles. Fill in the table with the following words to explain their meaning.

Poisonous, explosive, flammable.

Sign	Meaning of sign
	
	
	

(3)

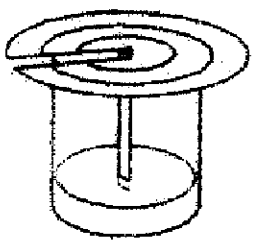
(b) Write the names of the following **apparatus**:


(i) _____ (ii) _____ (iii) _____ (iv) _____

(4)

(c) (i) Choose from the words below the name of this **experiment?**



Filtering, evaporation, chromatography.

_____ (1)

(ii) Underline the **apparatus** you would use for this experiment?

Evaporating dish, Bunsen burner, beaker, filter paper, funnel, marker, tripod, water, scissors. (5)

(iii) What would be the **result** of this experiment?

_____ (2)

_____

2. Each list has one thing that is the **'odd one out'**. Underline the 'odd one out'. Write a reason why you chose this one.

(a) **sheep** **cow** **octopus** **horse** **hen**

Reason: _____ (2)

(b) **fish** **glass** **horse** **penguin** **rabbit**

Reason: _____ (2)

(c) **woodlouse** **frog** **bear** **dog** **parrot**

Reason: _____ (2)

(c) **dog** **cat** **pig** **goldfish** **horse**

Reason: _____ (2)

3. (a) Look at the following pictures. Answer the questions below.

octopus

bird

snail

mouse

starfish

pig

(i) Name the vertebrates: _____, _____, _____. (3)

(ii) Name the invertebrates: _____, _____, _____. (3)

(iii) What is the main difference between the two sets?

_____ (2)

(b) Underline those things that all living things must do to stay alive.

Eat food, talk, swim, sleep, breathe, play, walk, grow, lose waste materials. (4)

(c) Which of the following statements are true about the **woodlouse**? Underline **True** or **False**

(i) Its body is divided into segments.	**True**	**False**
(ii) It likes to live in wet places.	**True**	**False**
(iii) It prefers the light.	**True**	**False**
(iv) It lives under water.	**True**	**False**
(v) It likes the dark.	**True**	**False**

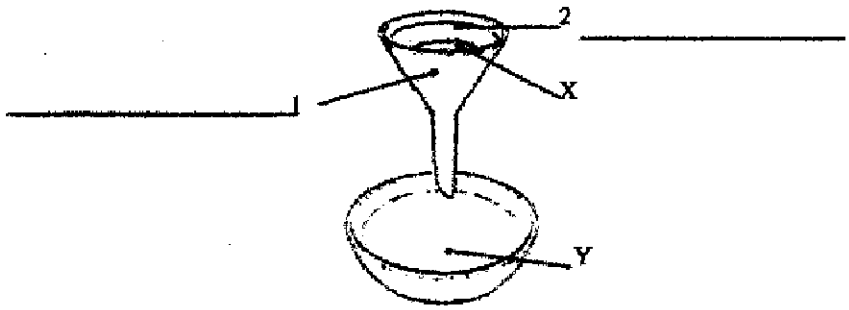
(5)

4. (a) Put a circle round the two materials that **dissolve** in water.

Chalk, salt, sand, sugar. (2)

(b) This apparatus is used to separate sand from water.

Label parts 1 and 2 on the diagram. (2)



(c) What substance is left at X? _____ (1)

(d) What substance is collected at Y? _____ (1)

5. (a) The table shows the five stages in the water cycle. Finish the table by writing in numbers to show the correct order. Number 1 has been done for you.

Water condenses to form clouds	
Water runs into the sea	
Water falls as rain	
Water evaporates from the sea	1
Water vapour rises in the air	

(4)

(b) Some ice cubes are placed in a glass of water.
What happens to the temperature of the water after the ice cubes are placed in the glass?

_____ (1)

(c) Ann wants to **dissolve** some sugar cubes in water as quickly as possible. Choose from the list below to suggest three things she should do.

Crush, stir, cool, heat, freeze, melt, evaporate.

(i) _____

(ii) _____

(iii) _____

(3)

6. The following are six forms of energy.

Light, sound, electrical, stored, movement, heat.

Use some of these words to fill in the spaces below.

(a) I get my energy from food. When I paddle a bicycle, my _____ energy is transferred to _____ energy and _____ energy which heats up my body.

(3)

(b) In a typical week you might eat 10 kg of food.

Explain why you are not 10 kg heavier at the end of the week.

_____

_____ (2)

(c) Write the **starting energy** and the **finishing energy** of the following:

	starting energy	**finishing energy**
a pea is fired from a catapult		
a yoyo is moving up and down		
playing an electric guitar		
A boy kicking a ball		

(8)

7. (a) Name the **instrument** I need to use to measure the following:

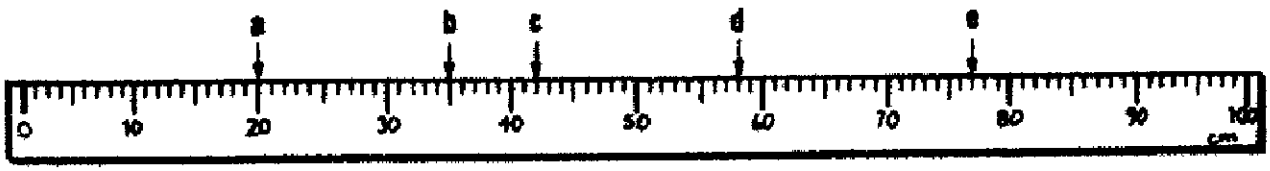
(i) The **length** of paper _____

(ii) The **temperature** of water _____

(iii) The **volume** of liquid in a cup _____

(iv) The **weight** of a ball _____ (4)

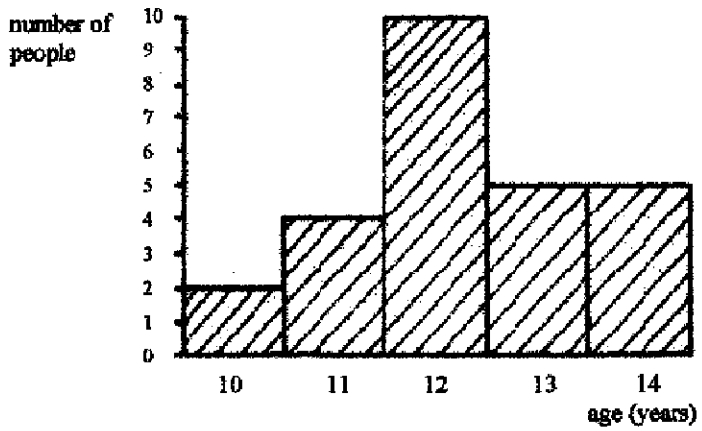
(b) What is the reading at each of the arrows **a** to **e**?



a = _____ **b** = _____ **c** = _____ **d** = _____ **e** = _____ (5)

(c) Sue and Maria did a survey in their youth club.

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



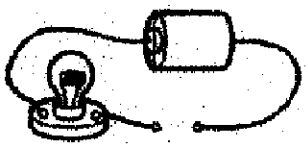
(i) How many people are aged 12? _____ (1)

(ii) How old is the youngest person? _____ (1)

(iii) How many people are in the youth club? _____ (2)

(iv) Which is the most common age group? _____ (1)

8 (a) Sara made this circuit to test which things **conduct** electricity.

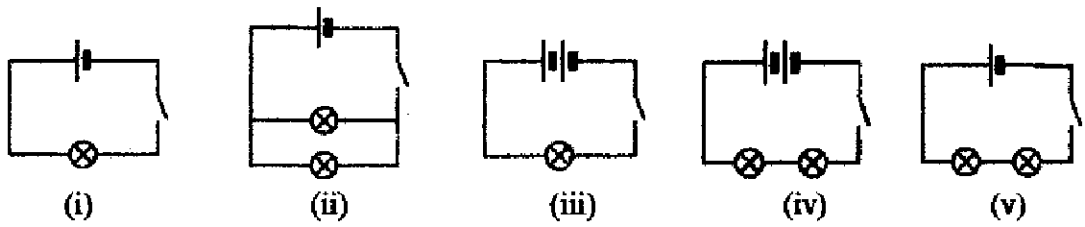


Choose the 4 things from this box that would complete Sara's circuit. Place a circle round your answer(s)

glass	***copper***	***rubber***	***iron***	***wood***	***aluminium***	***steel***	***plastic***

(8)

(b) Look at each of the circuits shown in the diagrams. Then answer the questions below.



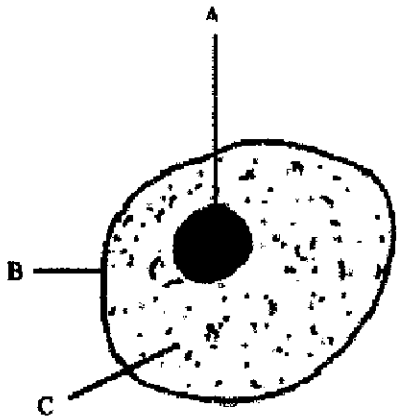
(i) In which circuit are the lamps in **series**? _____ (2)

(ii) In which circuit are the lamps in **parallel**? _____ (1)

(iii) In which circuit will the lamps be **brightest**? _____ (1)

(iv) In which circuit will the lamps be **dimmest**? _____ (1)

9. Look at this picture of a **cell**.



(i) Which line is pointing to the **nucleus**? _____ (1)

(ii) Which line is pointing to the **cytoplasm**? _____ (1)

(iii) Which line is pointing to the **cell membrane**? _____ (1)

(iv) Is this a **plant** or an **animal** cell? _____ (1)

(v) How do you know if it is a plant or an animal cell. _____

_____ (2)