5

NAME	CLASS	INDEX NO.

Parent's/Guardian's Signature: _____ **Date:** _____

ST. PATRICK'S SCHOOL
END-OF-YEAR EXAMINATIONS 2016

SUBJECT : GENERAL SCIENCE **DATE : 10 OCTOBER 2016**

LEVEL : SECONDARY 1 NORMAL (A) **DURATION : 2 HOURS**

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

1. Write your name, class and index number on the **Question Papers** and the **Optical Answer Sheet** in the spaces provided. **It is also required that you SHADE your index number on the Optical Answer Sheet.**
2. This paper consists of **Three (3) Sections: Section A, Section B** and **Section C.**
3. Answer **ALL** questions in **Section A** on the **Optical Answer Sheet** provided.
4. Answer **ALL** questions in **Section B** in the spaces provided.
5. Answer **THREE FULL** questions in **Section C** in the spaces provided.
6. Calculators may be used where necessary. **Where numerical answers are not exact, give answers to Three (3) significant figures.**
7. **DO NOT DETACH** any sections from this paper.
8. Submit the **Optical Answer Sheet** and **this paper SEPARATELY.**

For Examiner's Use Only

Section	A (30 m)	B (40 m)	C (30 m)	Ttl (100 m)	Grade	Target Grade
Score						

This question paper consists of 22 printed pages.
A copy of the Periodic Table is provided on page 22.

SECTION A : [30 marks]

*Each question is provided with **four** possible answers (**A**, **B**, **C** and **D**). Select the most appropriate answer and **shade** your choice on the **Optical Answer Sheet** provided.*

1 The following statements show the various skills practiced by a scientist when carrying out an experiment.

I Records down his observations.
II Draws conclusions from his observations.
III Changes results to prove his hypothesis.
IV Researches thoroughly on his experiment.

What are some procedures that a good scientist should follow?

A I and IV only
B II and III only
C I, II and IV
D All of the above

2 Which one of the following statements describes the harmful effect of technology?

A The introduction of new vaccines and medicines to treat and prevent diseases.
B The invention of high speed Maglev train to transport people between cities.
C The use of machines on farms to grow vast quantities of food within a short period of time.
D The constant need to keep up with technology such as computers and hand phones has resulted in large amount of electronic junk.

3 The following show steps carried out when lighting a Bunsen Burner.

I strike the lighter
II open the air-hole
III close the air-hole
IV turn on the gas tap

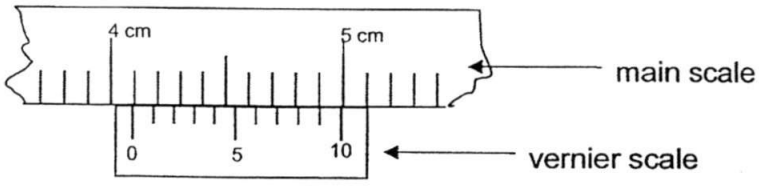
Which one of the following shows the correct steps in lighting a Bunsen burner safely?

A I → II → III → IV
B II → I → IV → III
C III → IV → I →II
D IV → III → I → II

4 Which one of the following physical quantities is correctly matched to its S.I. unit?

	Base quantity	S.I. unit
A	Length	kilometre
B	Mass	gram
C	Temperature	kelvin
D	Time	minutes

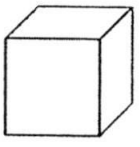
5 The diagram below shows a reading on a vernier caliper.



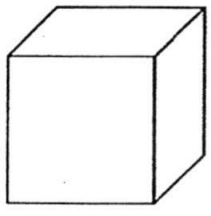
Which one of the following shows the correct reading?

A 4.09 cm
B 4.19 cm
C 4.10 cm
D 4.90 cm

6 The diagram below shows two metal cubes of different sizes. Both of the cubes are made from pure silver.



Cube **A** weighs 3 kg



Cube **B** weighs 5 kg

Which one of the following statements is true about the densities of metal cube **A** and **B**?

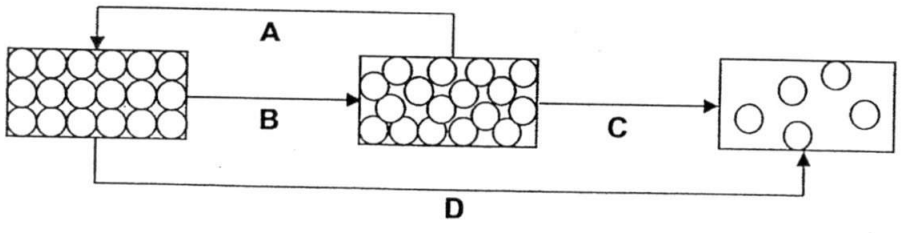
A Cube **A** and cube **B** have the same density.
B Cube **A** has a higher density than cube **B**.
C Cube **B** has a higher density than cube **A**.
D The densities of cube **A** and cube **B** are 3 kg/m^3 and 5 kg/m^3 respectively.

7 Which of these properties would be suitable for the material used in making a wire apart from it being a good conductor of electricity?

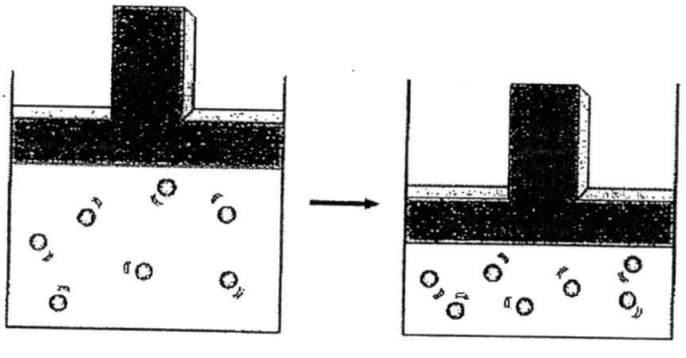
I ductile
II high melting point
III good conductor of heat

A I only
B II and III only
C I and III only
D All of the above

8 Which one of the following processes represent boiling?



9 The following diagram shows an experiment carried out on gases.



The experiment shows that gases can _____.

A be compressed
B vibrate at fixed positions
C occupy any available space
D diffuse faster into the surrounding

10 The following table shows the forces of attraction between particles during a

change in state.

Forces of attraction between particles before change of state:	Forces of attraction between particles after change of state:
very strong forces of attraction	extremely weak forces of attraction

Which one of the following represents the substances?

A Water turning into ice
B Water turning into water vapour
C Ice turning into water
D Ice turning into water vapour

11 Which one of the following sub-atomic particles can be found in the nucleus of an atom?

A Neutrons only
B Neutrons and protons
C Electrons only
D Electrons and neutrons

12 Which one of the following is the smallest particle in an atom?

A Proton
B Electron
C Neutron
D Nucleus

13 Hydrogen peroxide has the chemical formula H_2O_2. Which one of the following statements about hydrogen peroxide is correct?

A It is a mixture that contains the elements helium and oxygen.
B It is a mixture that contains the elements hydrogen and oxygen.
C It is a compound that contains the elements helium and oxygen.
D It is a compound that contains the elements hydrogen and oxygen.

14 Which one of the following groups contains three mixtures?

A Air, petrol, sea water
B Air, sand, helium
C Sugar, bronze, water
D Table salt, sugar, alcohol

15 Which one of the following statements shows a characteristic of a suspension?

A It is homogenous.
B Light is able to pass through completely.
C The proportion by mass for the components is not fixed.
D The properties of the suspension is the same as the constituent components.

16 Which one of the following statement(s) is/are correct about magnetic force?

I It is a non-contact force.
II It is a force of attraction or repulsion.
III Any objects which have masses can exert magnetic force on each other.

A I only
B II only
C I and II only
D II and III only

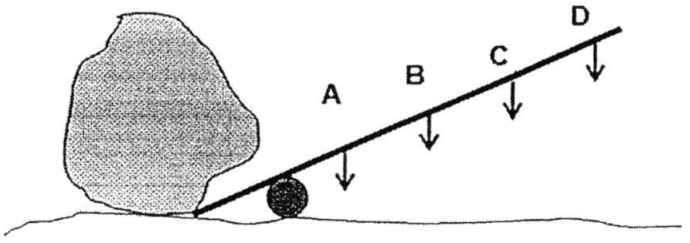
17 The gravitational force on the Moon is about one-sixth that on Earth. What is the mass of an astronaut on the Moon who has a mass of 70 kg on Earth?

A 11.7 kg
B 70 kg
C 117 N
D 700 N

18 Which one of the following shows a positive effect of friction?

A Heat produced by friction wears out tires of vehicles.
B Machines work less efficiently when friction is produced.
C Friction produced between the tires and the road slows down a racer.
D Friction between brakes and wheels slows down a bicycle on a downward slope.

19 The diagram shows a bar used to lift a rock. At which point will the **least** force be required to lift the rock?



20 The table given below shows pairs of energy and its source. Which one of the pairs is **wrongly** matched?

	Energy	Source
A	Geothermal energy	Escaping steam from earth
B	Hydraulic energy	Plants
C	Chemical energy	Rice
D	Solar energy	Sun

21 Which one of the following statements regarding the relationship between energy

and work done is correct?

A Energy is required to do work.
B Work can be done without any energy,
C As long as energy is used, some form of work must be done.
D Total amount of energy used equals to the total amount of work done.

22 Which one of the following is a feature of a dichotomous key?

A It uses similarities to divide a group.
B It can be used to classify plants only.
C It only divides a group based on structure.
D It divides a group into two sub-groups at each stage.

23 Which statement(s) is / are true about bacteria?

I Bacteria can be found in all types of places such as water, soil, food and even in our body.
II Bacteria may be beneficial as certain kinds of bacteria are used in waste treatment plants to break down waste into harmless product.
III Bacteria may be harmful as it can infect our digestive system and leads to diseases such as food poisoning.

A **I** only
B **II** only
C **I** and **III** only
D All of the above

24 Which one of the following does the diagram represent?

A Abiotic environment
B Community
C Ecosystem
D Population

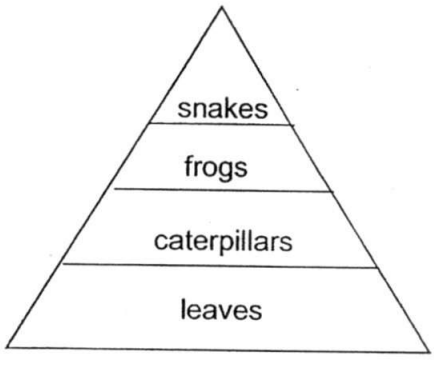
25 The following shows the equation for photosynthesis.

$$\mathbf{P} + \mathbf{Q} \xrightarrow[\text{sunlight}]{\text{chlorophyll}} \mathbf{R} + \mathbf{S}$$

Which one of the following options identifies **P**, **Q**, **R** and **S** correctly?

	P	Q	R	S
A	Carbon Dioxide	Glucose	Oxygen	Water
B	Oxygen	Water	Carbon Dioxide	Glucose
C	Carbon Dioxide	Oxygen	Glucose	Water
D	Carbon Dioxide	Water	Oxygen	Glucose

26 Which one of the following statements about the food pyramid shown is correct?



A Frogs feeds on leaves.
B Snakes has the largest population.
C The number of snakes is less than the number of frogs.
D The number of leaves is less than the number of caterpillars.

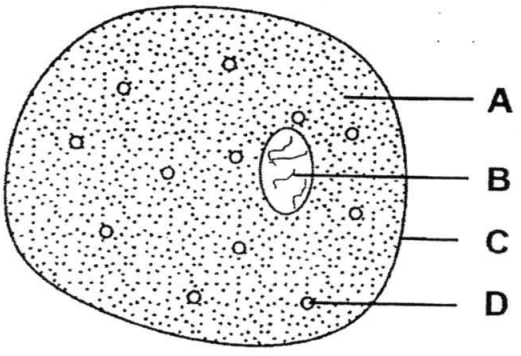
27 Which situation does **not** pose a threat to biodiversity?

A Preventing a hungry snake from attacking its prey.
B Using slash and burn method to clear land for use.
C Spraying insecticide to kill all the ants in the kitchen.
D Throwing a pet tortoise into the reservoir to get rid of it.

28 Which one of the following statements about cells are true?

A Cells are made up of tissues.
B Cells are the basic unit of all matter.
C All cells have a fixed shape and size.
D Cells can be seen with the naked eye.

29 Isaac realised that he has the same type of earlobe as his mother. Which part of the cell determines this characteristic?



30 Why is it important to have division of labour in a multi-cellular organism?

A It reduces the energy required in a multi-cellular organism.
B It reduces the waste products produced in a multi-cellular organism.
C It enables efficient functioning of the processes in a multi-cellular organism.
D It enables the multi-cellular organism to better defend itself against bacteria.

SECTION B : [40 marks]

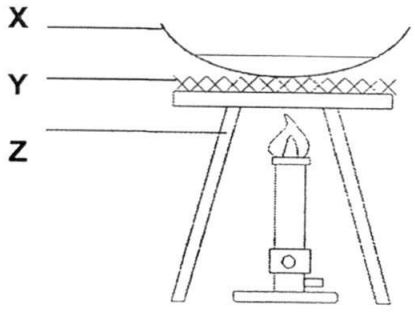
Answer **ALL** *questions in this section. Show your working and write your answers in the space provided.*

1 The diagram below shows an experiment setup to obtain salt from sea water. Name the apparatus labelled **X**, **Y**, and **Z** in the following diagram.

X: ..... **[1]**

Y: ..... **[1]**

Z: ..... **[1]**



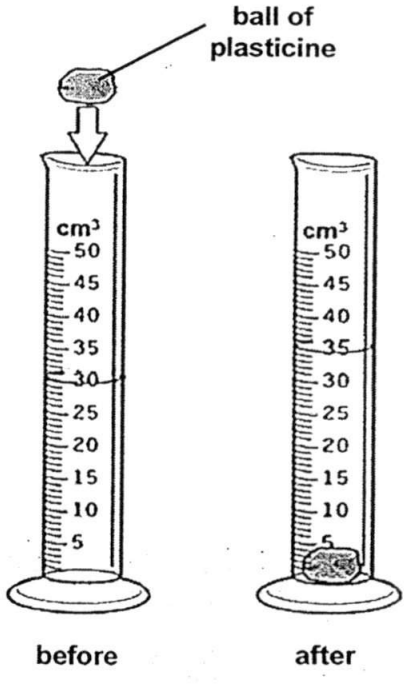
2 The following diagram shows readings before and after a ball of plasticine was placed into the measuring cylinder.

(a) Find the volume of the ball of plasticine. Show your workings clearly.

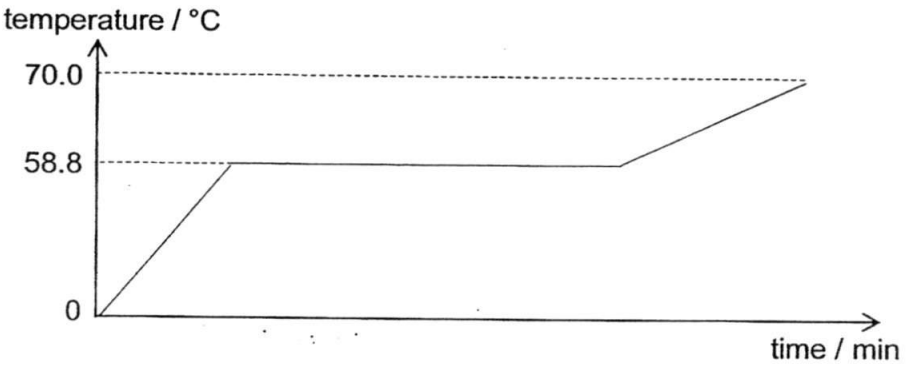
[2]

(b) Given that the density of the plasticine is 1.8 g/cm^3, find the mass of the ball of plasticine. Show your workings clearly.

[1]



3 The following heating curve is obtained when liquid bromine is heated from 0 °C to 70 °C.



(a) **(i)** Name the change of state that took place at 58.8 °C.

.....

[1]

(ii) Even though heat is supplied during the change of state in **(a)(i)**, why does the temperature remain constant?

.....

.....

[2]

(b) Describe the arrangement and movement of the bromine molecules at 70 °C.

Arrangement: .....

.....

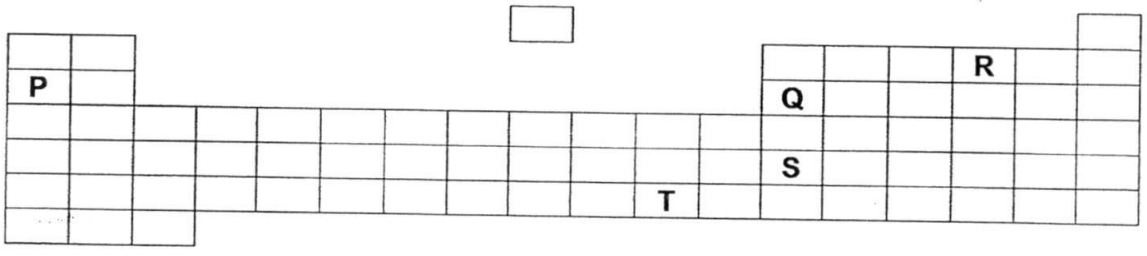
[1]

Movement: .....

.....

[1]

4 The diagram shows a simplified structure of the Periodic Table of elements **P**, **Q**, **R**, **S** and **T**.



(a) **(i)** State the elements (**P**, **Q**, **R**, **S** and **T**) which are in the same **group**.

..... and ..... **[1]**

(ii) State the elements (**P**, **Q**, **R**, **S** and **T**) which are in the same **period**.

..... and ..... **[1]**

(b) Which two element have similar chemical properties? Explain your answer.

.....

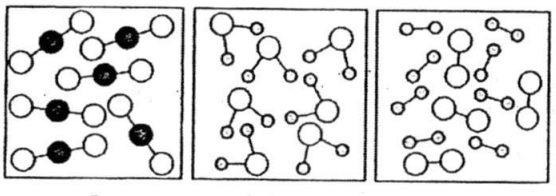
..... **[2]**

(c) Describe **two** differences in physical properties between elements **R** and **T**.

.....

..... **[2]**

5 The following diagrams labelled **A**, **B** and **C** represent the particles in different substances.



A **B** **C**

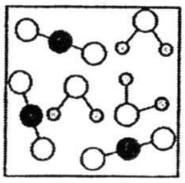
Using the letters **A**, **B and C** answer the following question.

(a) Which of the diagrams above represents compounds? Explain your answer.

.....

..... **[2]**

(b) The following diagram shows substance **D**.



D

Is substance **D** a mixture of elements, compounds or both elements and compounds? Explain your answer.

.....

..... **[2]**

6 When eggs are dropped or hit lightly, they crack. However, when a person weighing 600 N stands on a carton of eggs, the eggs do not crack.

(a) Explain how the eggs are able to withstand the weight without cracking.

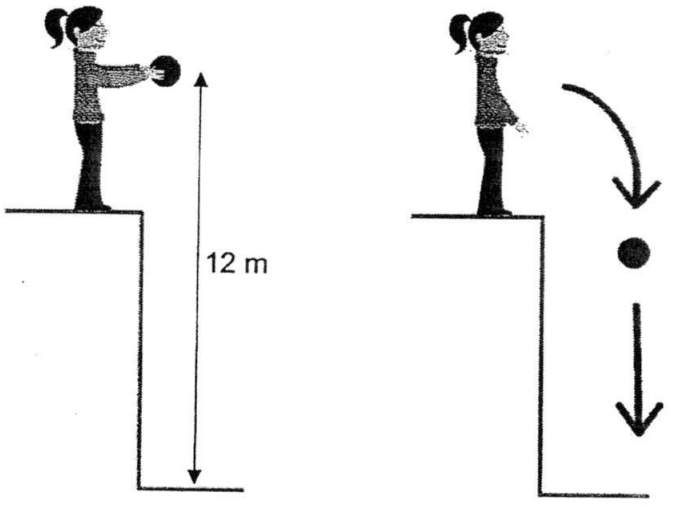
.....

..... **[2]**

(b) Given that the surface area of both feet in contact with the carton of eggs is 0.0252 m^2, calculate the pressure exerted on the carton of eggs by the person with a weight of 600 N.

[2]

7 The following diagram shows a girl dropping a ball from a height of 12 m.



(a) **(i)** State the principle of conservation of energy.

.....

..... **[2]**

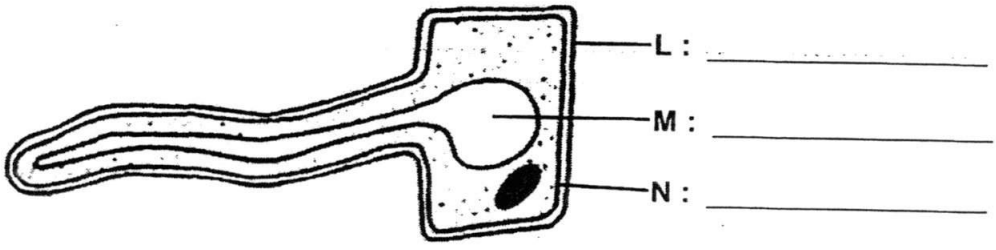
(ii) The amount of gravitational potential energy before the ball is dropped is 240 J. Using the principle of conservation energy, predict the maximum amount of energy converted into kinetic energy right before the ball hits the ground.

..... **[1]**

(b) The average speed of the ball as it falls was calculated to be 7.75 m/s. Calculate the time taken for the ball to hit the floor in seconds.

[2]

8 The following diagram shows a cell.



(a) Label the parts **L**, **M**, and **N** in the diagram above. **[3]**

(b) Is the cell shown in the diagram a plant cell or an animal cell? Give **two** reasons to explain your answer.

.....

.....

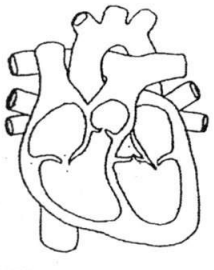
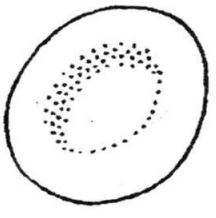
..... **[2]**

9 **(a)** Define 'division of labour'.

.....

..... **[2]**

(b) Identify if the following diagrams is an **organ**, **tissue** or **cell**. *(The options can be used once, more than once or not at all.)*

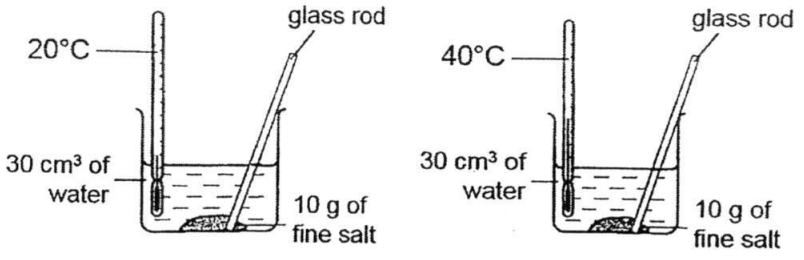
		
(i) _____	**(ii)** _____	**(iii)** _____

[3]

SECTION C: [30 marks]

Each question is worth **10 marks**. *Answer* ***THREE OUT OF FOUR*** *questions in this section. Write your answers on the spaces provided.*

1 **(a)** An experiment was conducted to investigate a specific factor that affects the rate of dissolving of salt. The set-up for the experiment is shown in the following diagram.



(i) Suggest a suitable hypothesis for the experiment conducted.

..... **[1]**

(ii) Identify the following variables for the experiment.

(A) An independent variable: ..... **[1]**

(B) A dependent variable: ..... **[1]**

(C) Two constant variables: ..... **[1]**

..... **[1]**

(iii) In which beaker (**X** or **Y**) will the 10 g of salt dissolve faster? Explain your answer.

.....

..... **[2]**

(iv) In terms of water particles and salt particles, suggest what happens when salt crystals dissolve in water.

..... **[1]**

(b) State the **two other** factors that affect the rate of dissolving.

Factor 1: .....

Factor 2: ..... **[2]**

2 (a) (i) What is an element?

.....

[1]

(ii) Using information from the Periodic Table, complete the following table on two of the elements found in baking soda.

Element	No. of Protons	No. of Neutrons	No. of Electrons
Carbon			
Sodium			

[3]

(b) The elements above can be found in chemical substances used in our everyday lives. For example, baking soda is used when making cakes to allow the flour to rise. It is known as sodium bicarbonate. Water and sodium chloride are also examples of chemical substances made up of elements.

Using the example give, complete the blanks in the following table.

name of substance	formula of substance	number of atoms of each element
Sodium bicarbonate	$NaHCO_3$	*1 sodium, 1 hydrogen, 1 carbon, 3 oxygen*
	CO_2	
Sodium chloride		*1 sodium, 1 chlorine*

[3]

(c) Baking soda is a white solid. The appearance of baking soda is different from that of carbon and sodium. Carbon and sodium cannot be obtained by filtration as well.

Give **three** reasons why baking soda is a compound and not a mixture.

Reason 1: .....

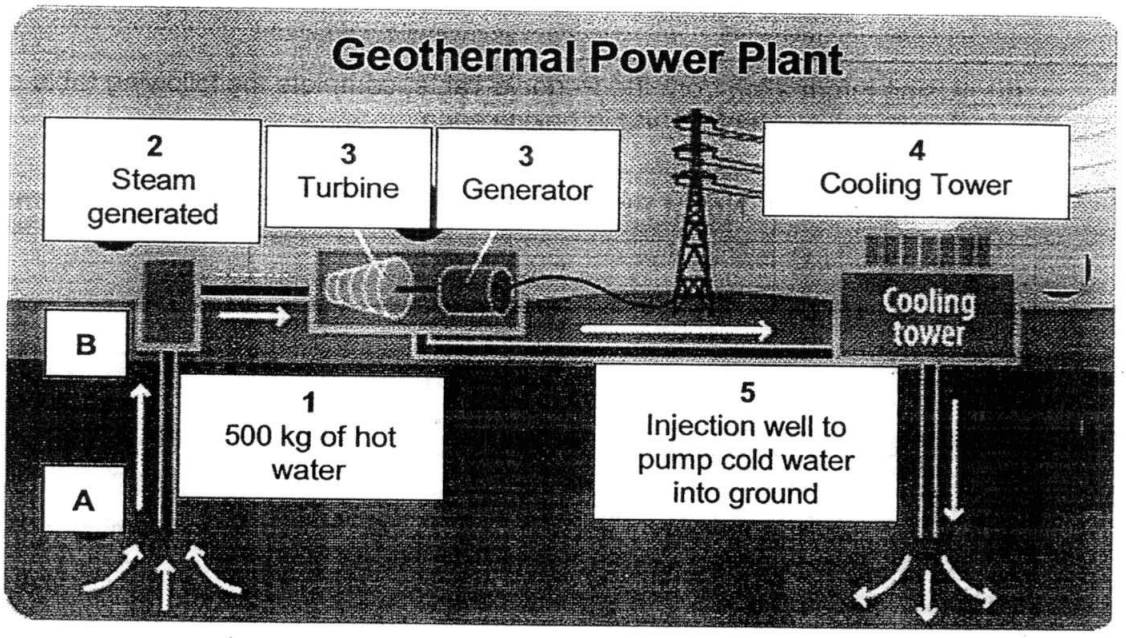
Reason 2: .....

Reason 3: .....

[3]

3 Electricity is generated in a geothermal power station by using the heat from the

ground. This electrical energy will be transferred to houses and used to power various housing appliances.



(a) State the energy conversion from the formation of steam to powering household appliances.

..... energy

from the ground heats up to form steam.

⇩

..... energy

of steam turns the turbines.

⇩

..... energy

of turbines turns the generator

⇩

..... energy is converted to

..... energy by the generator. **[5]**

(b) Hot water rising from below the ground boils into steam to turn the turbine. 500 kg of water flows from **A** to **B**.

(i) the weight of the water. (*The gravitational field strength, g, is 10 N/kg.*)

(ii) the work done to move the water. **[1]**

[2]

(c) Explain why it is not possible to have geothermal power station in Singapore.

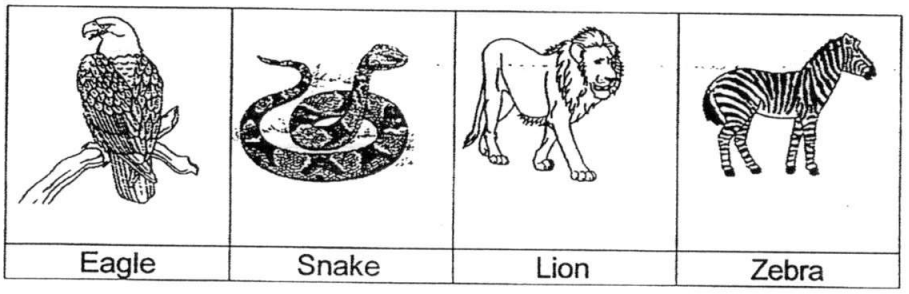
.....

..... **[1]**

(d) State one way you can conserve energy in your home.

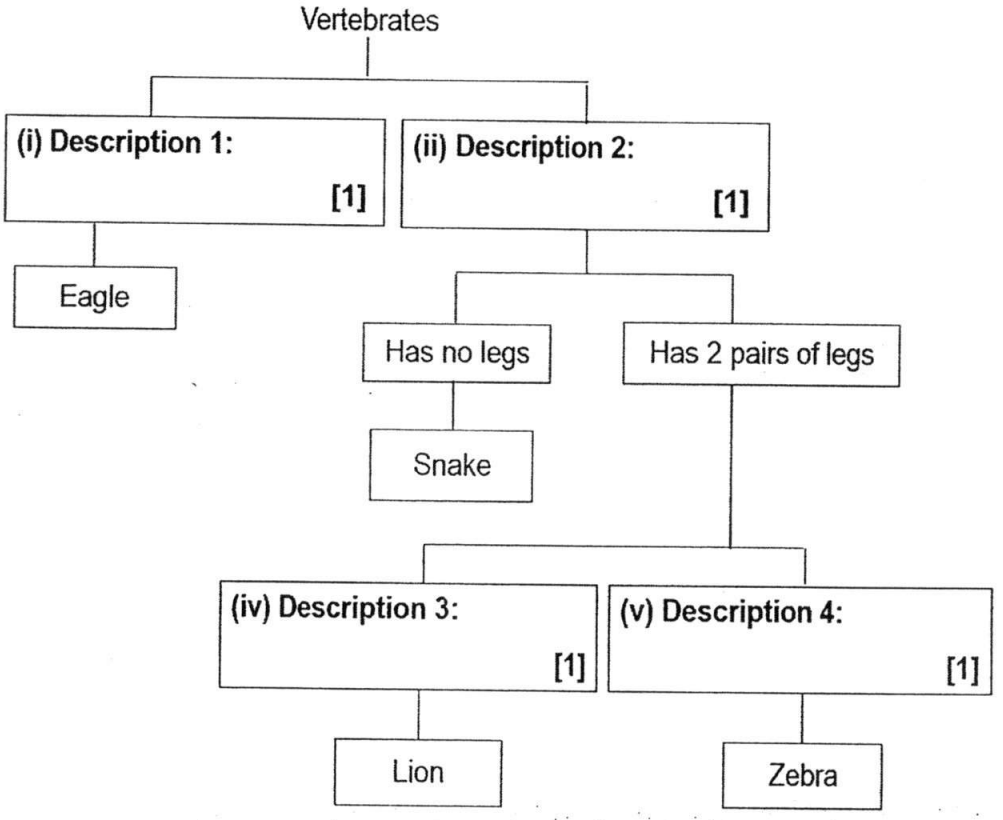
..... **[1]**

4 (a) The following animals can be found in the savannah.



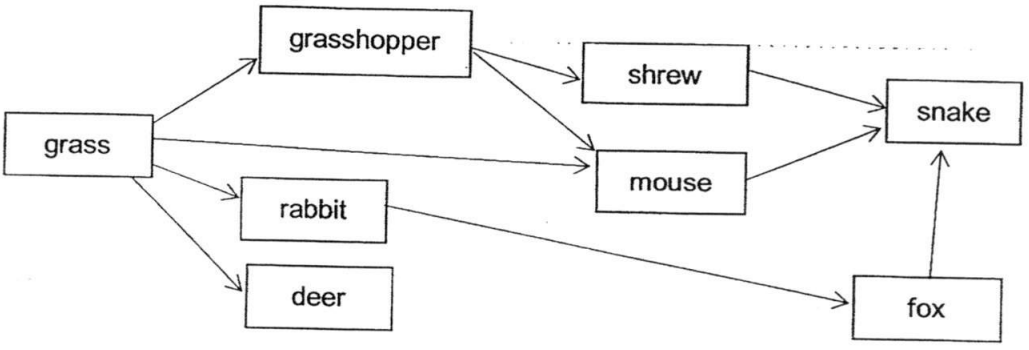
Eagle	Snake	Lion	Zebra

Complete the dichotomous key below by filling in the empty boxes with descriptions.



[4]

(b) The following diagram below shows a food web.



(i) Which organism is both a primary and secondary consumer?

.....

[1]

(ii) If the amount of energy found in grass was 5000 kJ, calculate the amount of energy passed on to the fox in the food web above.

[2]

(iii) State the **two** ways in which energy is returned to the environment.

.....

.....

[2]

(c) Fleas hide in the fur of rabbits and feed on their blood. State the type of relationship between rabbits and fleas.

.....

[1]

END OF PAPER

The Periodic Table of the Elements

Group I	Group II											Group III	Group IV	Group V	Group VI	Group VII	Group 0
							1 H hydrogen 1										4 He helium 2
7 Li lithium 3	9 Be beryllium 4											11 B boron 5	12 C carbon 6	14 N nitrogen 7	16 O oxygen 8	19 F fluorine 9	20 Ne neon 10
23 Na sodium 11	24 Mg magnesium 12											27 Al aluminium 13	28 Si silicon 14	31 P phosphorus 15	32 S sulfur 16	35.5 Cl chlorine 17	40 Ar argon 18
39 K potassium 19	40 Ca calcium 20	45 Sc scandium 21	48 Ti titanium 22	51 V vanadium 23	52 Cr chromium 24	55 Mn manganese 25	56 Fe iron 26	59 Co cobalt 27	59 Ni nickel 28	64 Cu copper 29	65 Zn zinc 30	70 Ga gallium 31	73 Ge germanium 32	75 As arsenic 33	79 Se selenium 34	80 Br bromine 35	84 Kr krypton 36
85 Rb rubidium 37	88 Sr strontium 38	89 Y yttrium 39	91 Zr zirconium 40	93 Nb niobium 41	96 Mo molybdenum 42	– Tc technetium 43	101 Ru ruthenium 44	103 Rh rhodium 45	106 Pd palladium 46	108 Ag silver 47	112 Cd cadmium 48	115 In indium 49	119 Sn tin 50	122 Sb antimony 51	128 Te tellurium 52	127 I iodine 53	131 Xe xenon 54
133 Cs caesium 55	137 Ba barium 56	139 La lanthanum 57 *	178 Hf hafnium 72	181 Ta tantalum 73	184 W tungsten 74	186 Re rhenium 75	190 Os osmium 76	192 Ir iridium 77	195 Pt platinum 78	197 Au gold 79	201 Hg mercury 80	204 Tl thallium 81	207 Pb lead 82	209 Bi bismuth 83	– Po polonium 84	– At astatine 85	– Rn radon 86
– Fr francium 87	– Ra radium 88	– Ac actinium 89 †															

*58-71 Lanthanoid series
†90-103 Actinoid series

140 Ce cerium 58	141 Pr praseodymium 59	144 Nd neodymium 60	– Pm promethium 61	150 Sm samarium 62	152 Eu europium 63	157 Gd gadolinium 64	159 Tb terbium 65	162 Dy dysprosium 66	165 Ho holmium 67	167 Er erbium 68	169 Tm thulium 69	173 Yb ytterbium 70	175 Lu lutetium 71
232 Th thorium 90	– Pa protactinium 91	238 U uranium 92	– Np neptunium 93	– Pu plutonium 94	– Am americium 95	– Cm curium 96	– Bk berkelium 97	– Cf californium 98	– Es einsteinium 99	– Fm fermium 100	– Md mendelevium 101	– No nobelium 102	– Lr lawrencium 103

Key: a / X / b
a = relative atomic mass
X = atomic symbol
b = proton (atomic) number

ST. PATRICK'S SCHOOL
END – OF - YEAR EXAMINATION 2016

SUBJECT :	GENERAL SCIENCE	DATE :	
LEVEL :	Secondary 1 Normal Academic	DURATION :	2 Hours

SECTION A

1	2	3	4	5	6	7	8	9	10
C	D	C	C	A	A	D	C	A	D

11	12	13	14	15	16	17	18	19	20
B	B	D	A	C	C	B	D	D	B

21	22	23	24	25	26	27	28	29	30
A	D	D	B	D	C	C	B	B	C

SECTION B

1	(a)		**X**: Evaporating dish [1] **Y**: Wire gauze [1] **Z:** Tripod stand [1]	[3]
2	(i)		**35 – 30 = 5 cm^3/ml (-1/2 for wrong/no units)**	[1]
	(ii)		Density = mass/ volume 1.8 = mass/ 5 **[1]** Mass = 1.8 x 5 = **9 g [1] (-1/2 for wrong/no units)**	[2]
3	(a)	(i)	Boiling.	[1]
		(ii)	Temperature remains constant as the molecules are **gaining energy [1]** to **overcome strong forces of attraction [1]** between each other.	[2]
	(b)	(i)	At 70°C, bromine molecules are **very disorderly arranged/spread out**.	[1]
		(ii)	At 70°C, bromine molecules move **randomly**[1/2] **at high speeds**[1/2].	[1]
5	(a)		**A and B.**[1] There are two different elements seen in the diagram. [1]	[2]
	(b)		**D.** [1] It shows **two different polyatomic compounds**. [1]	[2]
4			(i) Q, S (ii) P, Q	[1] [1]
			Q and S. [1] Elements in the **same group have the same chemical properties**. [1]	[2]
			Any two points for 1 mark. If only one point, award ½ marks. T: Has high melting point/ is a good conductor of heat or electricity/ is a solid. [1] R: Has low melting point/ is a poor conductor of heat or electricity/ is a gas. [1]	[2]

5	(a)	**A and B.**[1] There are two different elements that are **chemically combined together** [1] seen in the diagram.	[2]
	(b)	**A mixture of compounds.** [1] It shows **two different polyatomic compounds**. [1]	[2]
6	(a)	The **pressure exerted is reduced** **[1]** as his **weight is distributed among the carton of eggs.[1]**	[2]
	(b)	Pressure = force/ area Pressure = 600 / 0.0252 **[1]** = **23800 N/m^2 or Pa [1] (-1/2 for wrong/no units/not to 3sf)**	[2]
7	(a)	Energy cannot be **destroyed[1/2]** or **created[1/2]**. It can only be **converted[1]** to other forms of energy.	[2]
	(b)	**240 J [1]**	[1]
	(c)	Speed = distance/ time Time = distance / speed [1] = 12/7.75 = **1.55s [1]**	[2]
8	(a)	L: cell wall [1] M: vacuole [1] N: cell membrane [1]	[3]
	(b)	It is a **plant cell**[1]. This is because it has a **cell wall**[1/2] and **large central vacuole**[1/2].	[2]
9	(a)	The **breakdown[1]** of work into smaller and more specific tasks to **increase efficiency**[1].	[2]
	(b)	(i) organ (ii) organ (iii) cell	[3]

SECTION C

1	(ai)	The higher the temperature the faster the rate of dissolving.	[1]
	(aii)	(i) temperature of water (ii) time taken to dissolve completely/ rate of dissolving (iii) type of salt/ mass of salt/ volume of water	[3]
	(iii)	Beaker Y. [1] The higher the temperature, the more soluble the salt particles are.[1]	[2]
	(iv)	The salt particles get in between the particles of the water molecules.	[1]
	(b)	- Temperature - Size of solute particles - Rate of stirring	[3]

2	(a)	(i)	An element is a substance which cannot be broken down into two or more simpler substances by chemical methods.	[1]
		(ii)	Carbon: 6 [1/2] , 6[1/2], 6[1/2]	[3]

			Sodium: 11[1/2], 12[1/2], 11[1/2]	
	(b)	**(i)**	<table><tr><th>name of substance</th><th>formula of substance</th><th>number of atoms of each element</th></tr><tr><td>Sodium bicarbonate</td><td>$NaHCO_3$</td><td>1 sodium, 1 hydrogen, 1 carbon, 3 oxygen</td></tr><tr><td><u>Carbon dioxide[1]</u></td><td>CO_2</td><td><u>1 carbon, 2 oxygen [1]</u></td></tr><tr><td>Sodium chloride</td><td><u>NaCl [1]</u></td><td>1 sodium, 1 chlorine</td></tr></table>	**[3]**
	(c)		1. Properties of the compound is different from that of their constituent elements 2. It cannot be separated by physical means **3.** It is made up of four different elements	**[3]**

3	**(a)**	**(i)** **(ii)** **(iii)** **(iv)**	Heat Heat/Kinetic Kinetic Kinetic , electrical	**[5]**
	(b)	**(i)**	Weight of water = 500 kg × 10 N/kg **= 5000 N [1]** (-1/2 for wrong/no units)	
		(ii)	Work done =5000 N × 3000 m [1] **= 15 000 000 J [1]** (-1/2 for wrong/no units)	**[2]**
	(c)	Singapore does not have any volcanoes, geysers and hot springs to obtain geothermal energy from.		**[1]**
	(d)	Switch off electrical appliances when not in use.		

4	**(a)**	**(i)** **(ii)** **(iii)** **(iv)**	Has wings No wings Has no stripes/ has a mane/ has claws Has stripes/ has no mane/ has no claws	**[4]**
	(b)	(i)	Mouse	**[2]**
		(ii)	(10% x 5000) x 10% = **<u>50 kJ</u> (-1/2 for wrong/no units)**	
	(biii	Excretory products./Heat from respiration./Faeces/ decomposition		**[2]**

	)			
	(c)	(i)	parasitism	[1]