

## Middle Section Royal College - Colombo 07 Second Term Test - 2010

Grade 7 Time :- 30 minutes

## Science & Technology

Name : Index No :	Class:	•••••
<u>Part</u>	<u>: I</u>	
<ul> <li>Answer all questions and select the correct correct answer in the bracket.</li> </ul>	t answer and put the corre	ct number of the
01. Xylem tissue is a kind of  i. animal tissue  iii. human skin tissue	ii. plant tissue iv. human body tissu	ıe ()
02. A mineral that can be seen in the sand and u i. quartz ii. granite	•	iv. marble ()
<ul><li>03. For which adaptation, sunken stomata can be</li><li>i. to absorb water from the root</li><li>ii. to transport water through the stem</li><li>iii. to reduce the transpiration of the leaves</li><li>iv. to manufacture their own food</li></ul>	e seen in plant leave?	()
<ul><li>04. During winter squirrels live inside hollows in</li><li>This stratergy is called as</li><li>i. migration</li></ul>	ii. adaptation	nditions return.
iii. hybernation	iv. camouflage	()

05.	The	e density of water is,							
	i.	1000 kilograms per	cubic meter		ii.	800 kilogra	ms p	er cubic	meter
	iii.	100 kilograms per c	ubic meter		iv.	1800 kilogr	ams	per cubi	c meter
									()
06.	The	e speed is measured in	n kilometers per hour. Th	ne sy	mbo	ol is,			
	i.	kmh <sup>-2</sup>	ii. ms <sup>-1</sup>	iii.	Km	ıh <sup>-1</sup>	iv.	m/s	()
07.			h is used to transport sub	stan	ices	and prevents	hun	nan body	from
		eases.							
	i.	respiratory system		ii.	dig	estive systen	n		
	iii.	blood circulatory sy	stem	iv.	sec	retary systen	n		()
08.			n classification which of	the f	follo	wing are cor	ıside	ered as d	warf
	plai	nets?		G					
	i.	Ceres and Cena			~	es and Merc	ury		
	iii.	Pluto and Neptune	205	iv.	Cei	na and Venus	S		()
09.	Wh	at is the first unmann	ned artificial satellite sent	by	Russ	sia ?			
	i.	Salut - 1	ii. Sputnic 1	iii.	Miı	nera 9	iv.	Sputnic	- 2
									()
10.		ferent sizes of sand v	vas seen in the rice, boug	ght f	rom	the shop. Ac	core	ding to th	neir
	i.	a mixture		ii.	hor	nogenous mi	ivtur	<b>.</b>	
			uro.				Atui	C	( )
	111.	heterogeneous mixtu	ure	IV.	COI	npound			()
11.	Wh	ich one is the non me	etalic element,						
	i.	brass	ii. bronze	iii.	stee	el	iv.	silicon	()
12.	Wh	ich group of element	s evolve hydrogen when	reac	cting	with cold w	ater	?	
	i.	sodium, potassium,	calcium	ii.	cop	per, iron, alı	amin	nium	
	iii.	zinc, lead, copper		iv.	con	per, potassiu	ım, t	tin	()

13.	. The metal which does not react with the acid or base is,									
	i.	magnesium	ii.	aluminum	iii.	tin		iv.	copper	()
14.	An	acidic substance that	we	use at our home	is,					
	i.	soap solution			ii.	was	shing powde	er		
	iii.	milk of magnesia			iv.	the	extract of g	oraka	a	()
15.	The	The definite temperature when solid changes into liquid is know as the								
	i.	melting point	ii.	boiling point	iii.	sub	limation	iv.	expans	ion
										()
16.	Wh	nich of the following	acid	s can be found at	t home a	nd tl	ne laborator	y res <sub>]</sub>	pectively	y.
	i.	sulphuric acid / hyd	roch	loric acid		ii.	nitric acid	/ citri	ic acid	
	iii.	acetic acid / nitric ac	cid			iv.	hydrochlor	ic ac	id / hitri	c acid
										()
17.	Wh	nen a cell is connected	d to	a circuit, current	flows fr	om	1			
	i.	the positive termina	l to	negative terminal		7				
	ii.	the negative termina	al to	positive terminal						
	iii.	the positive termina	l to	positive terminal						
	iv.	the negative termina	al to	negative termina	ıl					()
18.	[	ı		Which of th	ne follow	ing	shows the c	orrec	t order o	of the
				connection,	of the e	lectr	ric cells and	bulb	s.	
				i. elec	ctric cell	s are	e parallel an	d the	bulbs a	re serial
				ii. Ele	ctric cel	ls ar	e serial and	the b	ulbs are	parallel
	ļ			iii. Ele	ctric cel	ls ar	e parallel ar	id bu	lbs are p	arallel
	iv.	Electric cells are ser	rial a	and the bulbs are	serial					()
19.	Wh	nat is the substance, v	vhen	heating straight	away be	ecom	ne a gas with	out o	converti	ng into
	liqu	aid.								
	i.	wax	ii.	ice		iii.	sulphur	iv.	iodine	()

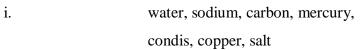
- 20. When two substances are rubbed together the charges which occur on the surface is called eletro static charges. what is the static charge aquired by the ebonite rod when rubbing with piece of flannel cloth,
  - i. positive charge ii. negative charge ii. no charge iv. no answer (....)

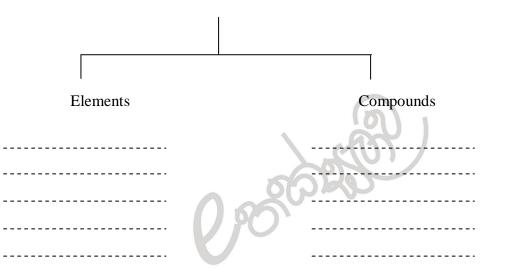
## Part II

## Instructions.

- \* Answer five questions, including the first question.
- \* Obtain 16 marks for the first question and obtain 11 marks each for other questions.
- \* First question carries 16 marks and the rest carries 11 marks each.
- \* The first question is compulsary.
- 01) As a student in grade 7, your have got a chance to find information about the solar system. For that, each group used different methods to present their findings. think Imagine that you are a member of one of a group and answer the following questions given below.
  - i. Write briefly, how your group has been prepared to present the information collected about the solar system. (2 marks)
  - ii. Give three sources you have used to collect information (3 marks)
  - iii. a) Write down two things that is used to present the project creatively. (2 marks)
    - b) Write down two important facts collected about the sun. (2 marks)
  - iv. Give information according to the topics given below for any two planets belonging to the solar system.
    - a) Name of the planet.
    - b) The place where it is in the solar system.
    - c) The nature of the planet. (3 marks)

- v. a) Write two advantages of revealing about space to man. (2 marks)
  - b) What is the first reusable space craft used for space travel? (1 marks)
  - c) Mention one challenge the astronauts should face in space explorations and explain how they overcome it? (1 marks)
- 2) We come across many substances in our daily life. In science we use different criteria to classify therse substances. The diagram given below is a method to classify substances. Fill the blanks with the suitable substance from the list given below.





- ii. Write a reason for classifying above substances as elements and compounds. (1 marks)
- iii. Among the substances
  - a. Name all the metallic elements. (2 marks)

(4 marks)

- b. Name one none metallic element (1 marks)
- iv. a. Which is the substance which produce oxygen when heating? (1 marks)
  - b. Name the element which reacts violently with water and makes a hissing sound, rushes around the water surface, and turn in to a small ball (1 marks)
  - c. What is the gas produced during this reaction? (1 marks)

3)	The	e soil is a natural resource. Soil can be classified into three types based on the size	of particles.
	The	e activity given below is designed by a grade 7 student to identify the three types	of soil.
		y desired green colors is designed by a grade statement to identify the times types	01 5011
If sa		amount of soil samples and water have been put into three funnels,	
	i.		(0.1)
		a. Name the three A, B,C, soil samples	(3 marks)
		b. Name a property of soil sample c.	(1 marks)
	ii.	0000	
	11.	a. Which one of the above soil sample is ideal for plant growth?	(1 mark)
		<ul><li>a. Which one of the above soil sample is ideal for plant growth?</li><li>b. How can we enrich the other two soil samples for the plant growth?</li></ul>	(2 marks)
		b. How can we chileft the other two son samples for the plant growth:	(2 marks)
	iii.	The soil that we are using is a result of the process of million years. Therefore it	is important
		to conserve the soil for the future generation.	<b>F</b>
		a. Give two major factors which cause soil erosion.	
		b. The soil erosion increases by human activities. Name a human activity wh	ich cause
soil		erosion.	(1 marks)
	iv.	Write down two methods of soil conservation in a sloap land.	(1 mark)

- 4) Explain using scientific reasons for any five of the following statements.
  - a. It is poisonous to prepare a pickle in an aluminium vessel.
  - b. If we dissolve ash in water is soapy to the touch.
  - c. If we add dilute a hydrochloric acid to a test tube containing egg shells bubbles will be produced.
  - d. If we leave a balloon filled with hydrogen gas it will go up very fast.
  - e. When adding few drops of phenolpthelin to a beaker containing sodium hydroxide the changes colour in to pink. But adding diluted hydrochloric acid to it, the colour of the. solution disappears.
  - f. After adding baking soda to mixture of flour it will become very soft and puff after for some time.
  - g. After dissolving quick lime in water, the vessel will get heated. (2 ½ marks x 5)
- 5) Practical is prepared to check whether the certain objective are immersed, submerged and float according to their densities.
  - \* a marble stone, a glass stopper, a rubber stoppes
  - \* a measuring cylinder.
  - \* a beaker
  - \* a spring balance
  - \* thread

i.

\* sufficient water

	a.	Write the two measurements of that you should obtain to find the density of the	
		marble stone	ks)
density.	b.	Using the above measurements write the formula use to find out the density the	
J			ks)
ii.		Explain scientifically that how the above objects behave when in they are water	
		(3Marks)	

iii. Following instructions are given by the teacher to the students to do the above activities.

Tie the marble stone by a piece of thread and weight it using the spring balance get the reading first. Now slowly immerse in water and weight it again

- a. What are the observations you expected? (1 Mark)
- b. Write the reason for the above observations. (1 Mark)
- c. Give on instance where the above phenomenea is applying in daliy life (2 Marks)
- a. When lowering the bag of kerosene oil to a beaker of water shows a less weight in the spring balance than when it is out side. What is the reason for this difference?

- b. give and instance where the above phenomena is applying in our daily life
- 6) There are three parts in the earth such as lithosphere, hydrosphere and atmosphere. going to interior of the eath to the bottom there are various types of layers. Below diagram is a cross section of the earth. Name the parts A, B, C, D in the diagram.
  - i. a. What is the thickness of the layer A?
    - b. What are the components of A is made up?
  - ii. a. Write one difference between the layers B and C
    - b. About 80% of the part D is made up of some materials. What are they?
  - iii. a. Name a type of rock and a type of mineral.
    - b. Write down one use of each.
  - iv. a What type of rock forms by the volcanic activity?
    - b. The pencil which you use to write made up of a mineral. what is it?