Grade 9/2017/34-S-I&II			
සියලු ම තිමිකම් ඇවිරිණි ] (மුගුට பதිවාුණිකහටුකෙයනු ]			
All Rights Reserved]	Proper source Science Advance A	and a Company of the	according to the second
Western Provincial Education Departm	ngo ceu cance ec	පාර්තමේන්තුව - කොළඹ අධනාපන  නාශාස්සභාර - නොලුඹ අධනාපන	peperanen canana garaga a con []
saholi slanavisaani . Osavoin si		on Department - Colombo Educ നേന്ത്രായ യൂട്ടെ മാത്രാ ട്രോ സോടെ പ്രോ	of annual Great parametilestern Provinc
	දෙවන	වාර ඇගයීම	
		ற் <b>தவணை மதிபீடு</b> d Term Evaluation	<b>2017</b>
(ලේණිය) වීෂය		u Term Dyuruution	[ පතුය
தரம் } 9 பாட			வினாத்தாள் I,II காலம் 2 Hours
(C.L.)			
		Ind	lex no :
Important:			
Select the most appropriate	answer from ques	stions 1-20 and underline	it.
		Part I	
(1) Select the unsuitable c			
(1) Nicholus Copernio	cus – Introduced	the helio-centric mod	lel
(2) Tycho Brahe – De	signed the equip	oment called sextant	
(3) Pythagorus – Dec	lared that earth i	s a sphere	
(4) Johannes Kepler -	- Explained that	planets are moving in	elliptical orbits
	- 10	. 6	
(2) Not a primary energy	resource, UC	ation <b>(</b>	
(1) Biomass	600	(2) Geotherm	nal energy
(3) Natural gas	0 555	(4) Wind ene	ergy
(3) The element which is	being used most	ly in nano-technology	at present is,
(1) Carbon		(2) Sodium	අගගාපන
(3) Silicon		(4) Germaniı	um
	g is not created f	٠.	ed during big-bang explosion?
(1) Matter		(2) Gravitation	onal force
(3) Time		(4) Electro m	nagnetism
(5) Select the group which	ı only contain pı	are metals.	
(1) Iron, Lead, Steel		(2) Brass, Iro	on, Copper
(3) Copper, Iron, Gold	d	(4) Nichrome	e, Iron, Zinc
(6) Which of the following	g is considered a		
(1) Burning a paper			ecoming tarnished
(3) Evaporation of wa	iter	(4) Ripening	of fruits
(a) The 1 1 1 1			
(7) The element which do	· ·		
(1) Magnesium	(2) Iron	(3) Carbon	(4) Sodium
			[Please turn over
500555555555555555555555	250500000000000000000000000000000000000	·····	

Gra	de:9/2017/34-S-T&IT			
(8)	= = =			order to find out the ability of
	dissolving sugar in col	_		
	X- Sugar dissol	ved very fast in hot w	ater and undissolved su	gar was found in cold water.
	Y- Dissolving	equal masses of sugar	in equal volumes of co	ld and hot water.
	Z – Solubility o	f sugar in hot water is	s high.	
	Which of the following respective order?	ng answers give exp	eriment, observation as	nd conclusion given above in
	(1) X, Y, Z	(2) X, Z, Y	(3) Y, X, Z	(4) Z, Y, X
(9)	-	-	t in our solar system is,	
	(1) Sirius	(2) Aldebaran	(3) Alpha Centauri	(4) Polaris
(10)	The minimum differe build a high tide- low		present between high	tide and low tide, in order to
	(1) 10 meters	(2) 4 meters	(3) 100 meters	(4) 80 meters
(11)	Select the group which	n only include disease	s spread by viruses	
(11)	(1) Tuberculosis, Teta	· ·	•	, Pneumonia, Cholera
	(3) Amoebic dysenter			pox, Measles, Rabies
	(3) Amocole dyseller	ry, Arumann, Common	cold (4) Chicken	pox, weasies, Rabies
(12)	The constellation which	ch was used in the pas	t to check the eyesight i	
(12)	(1) Pleiades	(2) Great bear		(4) Taurus
	(1) Ticlades	(2) Great bear	(5) Centaurus	(4) Taurus
(13)	The symbol used to re	present the metal iron	during alchemy era is,	
(15)	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	(2)	(3)	(4)
	$\odot$	D	O	අධයාපෘජු
(14)	The fossil fuels which	contribute in environ	nmental pollution in hig	thest and lowest scale given in
	respective order are,			
	(1) Petrol, Diesel		(2) Coal, Crude oil	
	(3) Crude oil, Coal		(4) Coal, Natural ga	as
(15)	What is represented by	v the stars present in t	he package of CFL bulk	08?
(13)	(1) High quality of eq	•	ne package of CI L ball	
	(2) Efficiency of energy	-		
	(3) Environment frien	= -		
	(4) Produced with high	· ·		
(16)	The law of conservation	on of mass was forwa	rded by,	
	(1) Albert Einstein		(2) Alexander Flem	ming
	(3) Francis Bacon		(4) Anthony Lavois	•
	• •		•	
9090000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000200000000000000000000000000000000000	[Please turn over
			-2- Grade -9,	Science, Colombo Educational Zone.

## Grade 9/2017/34-S-I&II

- (17) Final stage of a star is called as,
  - (1) Nebula

(2) Red giant

(3) Black dwarf

- (4) Protostar
- (18) The fundamental of nano-technology is
  - (1) Approaching from top to bottom
- (2) Approaching from bottom to top
- (3) Aggregation of small particles
- (4) Formation of strong large particles
- (19) The disease caused by a fungus is,
  - (1) Infection of mouth and reproductive organs
- (2) Leprosy

(3) Malaria

- (4) Rabies
- (20) The nebulawhich can be observed by the naked eye is found in,
  - (1) Taurus

- (2) Orion
- (3) Scorpius
- (4) Sirius



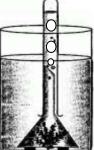
[Please turn over

### Part II

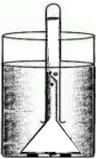
- \* Answer the first question and four other questions.
- \* Total number of questions which should be answered is five.

(1)

(A) Two set-ups which were designed by a student with the help of his teacher and was placed in bright sunlight, in order to study about evolving of gas bubbles from the aquatic plants present in a fish tank.



Set up - A



Set up - B

- (i) Write a suitable hypothesis for the above controlled experiment. (1)
- (ii) Name the variable factor in the above controlled experiment. (1)
- (iii) Name the experimental set-up and control set-up seperately (2)
- (iv) What are the steps which needs to be followed in order to come to a reasonable conclusion? (2)
- (B) You can get a good knowledge on equipment used in a vehicle repairing worksite by observing such a place.
  - (i) How can you identify the equipment used in such a worksite correctly? (1)
  - (ii) A tool board was found in a vehicle repairing worksite. What is the importance of it? (1)
  - (iii) What is the equipment needed to remove the engine of a vehicle? (1)
  - (iv) State the importance of following steps in producing compost fertilizer.
    - a. Adding pre-prepared compost to the mixture (1)
    - b. Adding water time to time (1)
    - c. Adding some urea (1)
- (C) At present, the demand for energy keeps on rising day-by-day. An energy crisis is created as a result.
  - (i) What is meant by energy crisis? (1)
  - (ii) Usage of alternative energy resources can be given as one solution to energy crisis. State the alternative energy resources which can be used instead of following fuels.

a. L. P. gas -

b. Diesel -

c. Petrol - (1)

[Please turn over

### Grade 9/2017/34-S-I&II

**(2)** 

**(A)** 

The position of an object moving in a straight path at the end of each second, is shown in the following diagram.



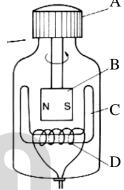
Direction of motion —

- (i) Describe the nature of motion of object in following instances, using the above description.
  - (a) Between A B -
  - (b) Between B C -
  - (c) Between C D -

(1x3)

- (B) Following is a diagram of a bicycle dynamo.
- (i) Name the parts A,B,C,D.
- (ii) What is the nature of current generated in a bicycle dynamo? (1)
- (iii) Solar panels are used to produce electricity. Write the energy conversion taking place in a solar panel. (1)

Education



(2)

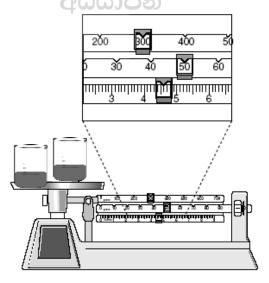
(C) Two equal sized beakers contain 20ml from sodium bicarbonate solution and dilute hydrochloric acid. When they were kept on the pan of triple beam balance and balanced, it was viewed as shown in the diagram below.

(1)

- (i) What is the mass of these reactants?
- (ii) Those two solutions were mixed and, beakers were placed on the pan of triple beam balance again.

  What is the observation to confirm the occurance of a chemical reaction? (1)
- (iii)What would happen to the reading of the triple beam balance after mixing two liquids, increased, decreased or remained same compared to previous reading? (1)
- (iv)Can law of conservation of mass be proved or not using the above activity? Explain the reason.(1)





[Please turn over

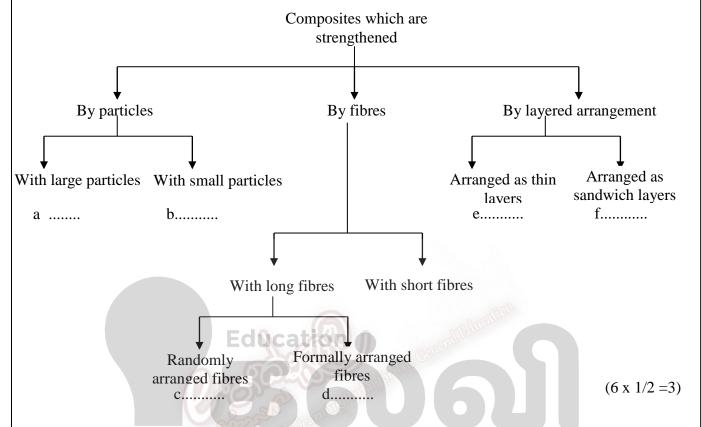
Grade 9/	2017	/34-S-I&II			
(3)					
(A) l	Follo	owing is a model ma	de to demonstrate the activity of	a lead-ac	id accumulator.
(i)	Nar	ne the metals marked	as A,B	(1)	/B
(ii)	Dia	gram shows an instan	ce where Lead-Acid accumulator i	S	A
	cha	rged. In which electro	de a colour change takes place?	(1)	
(iii)	Wh	at is the maximum vo	ltage which can be obtained from a	a cell of	
	this	type?		(1)	
(iv)	Fro	m which electrode to	which electrode the current would	flow	
	afte	r charging?		(1)	Dilute Sulphiumia acid
					Sulphiuric acid
			es which were found on the labor	•	· ·
			cid, Copper turnings, Calcium	ı chlorid	le solution, Crystal of
	-	hur, Sodium carbon	· · · · · · · · · · · · · · · · · · ·		
			ch burn with a blue flame on heatin	U	(1)
` '		· ·	above substance, a coloured gas is		(1)
(111)	W	hich of the above sho	uld be mixed to get a precipitate fo	rmed?	(1)
(C) I	X/o	ugo allova for our dif	forent needs. Allows are consider	ad as bar	
		at is meant by a home	ferent needs. Alloys are consider	eu as noi	(1)
			an be used to identify a homogeno	ue mivtur	
			ty of following alloys.	us illixtui	c. (1)
(111)			ducation		
		Brass	Canan		(1x2)
	0.1	Diass	E CE STORY		$\frac{(1\lambda Z)}{11}$
			de la fina		
(4)				ඇබ්ර	තා <b>පන</b>
$(\mathbf{A})\mathbf{F}$	ew	food extracts which	n can be used to identify nutr	rients in	food are given below.
C	om	plete the following ta	ble using them.		
		a. Extract of a ripe	mango b. Dhal	extract	
		c. Mashed potato	d. Veget	table oil	
		NT		CI	• 1 1, • 1 ,• 0
		Nutrient	Food extract used for testing	Chem	icals used to identify
	1	Lipid	a.	b.	
	2	Glucose	c.	d.	
	3	Starch		f.	
		Staten	e.	1.	

(6 x 1/2=3)

Grade 9/2017/34-E-I&II

(B) Different materials are mixed to make composites stronger. Following chart shows how composites are strengthened. Complete the chart using the letters for the materials given below.

( A-Milk powder packaging, B-Concrete, C-Rubberized coir matrasses, D- Alloys, E-Fibre glass, F-Canvas)



(C) Information present in the packaging are important in purchasing goods of high quality without getting mislead by commercial advertisements.

- (i) Explain what is meant by a quality certificate. (1)
- (ii) Explain what is meant by net weight which is mentioned in most packaging. (1)
- (iii) What is the reason for including the details of the manufacturer in a product? (1)
- (iv) If there are impurities in a food which you purchased, to whom you should inform it at first? (1)
- (v) What is the reason for banning the usage of CFC gas in refrigerators? (1)

(5)

(A) John Dalton was the first to put forward his views regarding the particles from which the matter is composed.

- (i) Who forwarded the nuclear model of the atom? (1)
- (ii) An atom is composed of two parts according to the nuclear model. What are they? (2)
- (iii) Name two sub atomic particles found in an atom and write the names of scientists who discovered them. (2)

[Please turn over

(1)	Write the symbols of following elements.	$(1/2 \times 4 = 2)$
	(a) Mercury (b) Sodium (c) Potassium (d) Calc	ium
(ii)	A metal show a very slow reaction with cold water. When this metal	is heated strongly, it
	burns with a bright flame leaving a white coloured powder.	
	(a) What is the metal mentioned above?	(1)
	(b) What is the gas released when this metal reacts with water?	(1)
	(c) Write a word equation for the reaction taking place when this metal	is burnt in air. (2)
		11
(6)		
	Iany polymers are used at present to fulfil various needs of human	Natural as well as
	rtificial polymers are present.	
(i)	Name two natural polymers and write their corresponding repeating unit	$(1/2 \times 4 = 2)$
(1)	Traine two natural polymers and write their corresponding repeating unit	$\cdot  (1/2 \times 1 - 2)$
(ii)	State one special property of following polymers.	$(1/2 \times 1 - 2)$
		$(1/2 \times 1 - 2)$
(ii)	State one special property of following polymers.	(2)
(ii)	State one special property of following polymers.  (a) Polythene (b) Perspex	(2)
(ii)	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial	(2) al polymers in the
(ii) (iii) (B) Na	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  Fano-technology is a vast area which is linked to many other fields.	(2) al polymers in the (2)
(ii) (iii) (B) Na	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificing environment, other than recycling.  (ano-technology is a vast area which is linked to many other fields ano-fertilizers was held during a recent exhibition.	(2) al polymers in the (2) A presentation on
(ii) (iii) (B) Na	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  (ano-technology is a vast area which is linked to many other fields ano-fertilizers was held during a recent exhibition.  What is meant by nanotechnology?	(2) al polymers in the (2)  A presentation on (1)
(ii) (iii) (B) Na	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  Fano-technology is a vast area which is linked to many other fields ano-fertilizers was held during a recent exhibition.  What is meant by nanotechnology?  A cell is a natural nano-system. Name two nano-scale cellular organe.	(2) al polymers in the (2)  A presentation on  (1)  lles present within a
(ii) (iii) (B) Na (a) (i) (ii)	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  (ano-technology is a vast area which is linked to many other fields.)  (ano-technology is a vast area which is linked to many other fields.)  (ano-technology is a vast area which is linked to many other fields.)  (ano-technology is a vast area which is linked to many other fields.)  (a) Polythene (b) Perspex  (a) Polythene (b) Perspex  (b) Perspex  (a) Polythene (b) Perspex  (b) Perspex  (c) Polythene (c) Perspex  (a) Polythene (b) Perspex  (b) Perspex  (c) Polythene (c) Perspex  (c) Polythene (c) Perspex  (d) Polythene (c) Perspex  (e) Perspex  (e) Polythene (c) Perspex  (e) Perspex  (e) Polythene (c) Perspex  (e) Perspex	(2) al polymers in the (2)  A presentation on (1)
(ii) (iii) (B) Na (a) (i) (ii)	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  Sano-technology is a vast area which is linked to many other fields ano-fertilizers was held during a recent exhibition.  What is meant by nanotechnology?  A cell is a natural nano-system. Name two nano-scale cellular organe cell.  Write one special property of following nano-products.	(2) al polymers in the (2)  A presentation on  (1)  lles present within a
(ii) (iii) (B) Na (a) (i) (ii)	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  (ano-technology is a vast area which is linked to many other fields ano-fertilizers was held during a recent exhibition.  What is meant by nanotechnology?  A cell is a natural nano-system. Name two nano-scale cellular organe cell.  Write one special property of following nano-products.  a. Nano thermal insulators -	(2) al polymers in the (2)  A presentation on  (1)  Illes present within a (2)
(ii) (iii) (B) Na (a) (i) (ii)	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  Sano-technology is a vast area which is linked to many other fields ano-fertilizers was held during a recent exhibition.  What is meant by nanotechnology?  A cell is a natural nano-system. Name two nano-scale cellular organe cell.  Write one special property of following nano-products.	(2) al polymers in the (2)  A presentation on (1) lles present within a (2)
(ii) (iii) (B) Na (a) (i) (ii)	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  (ano-technology is a vast area which is linked to many other fields ano-fertilizers was held during a recent exhibition.  What is meant by nanotechnology?  A cell is a natural nano-system. Name two nano-scale cellular organe cell.  Write one special property of following nano-products.  a. Nano thermal insulators -	(2) al polymers in the (2)  A presentation on  (1)  Illes present within a (2)
(ii) (iii) (B) Na (a) (i) (ii)	State one special property of following polymers.  (a) Polythene (b) Perspex  State two solutions which can prevent the collection of artificial environment, other than recycling.  (ano-technology is a vast area which is linked to many other fields ano-fertilizers was held during a recent exhibition.  What is meant by nanotechnology?  A cell is a natural nano-system. Name two nano-scale cellular organe cell.  Write one special property of following nano-products.  a. Nano thermal insulators -	(2) al polymers in the (2)  A presentation on (1) lles present within a (2)

Grade 9/2017/34-E-I&II **Extra question (Only for Muslim schools) (7)** (A) There are many benefits of micro organisms to human. (1) What are micro-organisms? (1) (2) Micro-organisms are mainly of five types. Name four of them. (2)(3) State the immunization vaccine which is produced from the parts of causative agent cells or viruses. (1) **(B)** (1) Name the constellation to which following stars belong. a. Pole star b. Aldebaran (2)(2) What is meant by ecliptic? (1) There are many natural nano systems in our surrounding. (1) What is meant by lotus effect? (1) (2) Name an instance in the nature in which lotus effect can be seen. (1) (3) State one adverse impact of nano-technology (1) (4) What is the organization which operate for avoiding adverse impacts of nano-technology? 11 Education අඛ්යාපන

# ONLINE CLASSES - 2025. VEV ADMISSIONS

## 2ம் தவணை வகுப்புகள்

தரம் 6 முதல் O/L வரை

அனைத்து பாடங்களும் ஒரே கல்வி நிறுவனத்தின் கீழ் ...



இலங்கையின் எப்பாகத்திலிருந்தும் ZOOM APP மூலம் எமது வகுப்புகளில் இணைந்து கொள்ள முடியும்

JOIN NOW WWW.KALVI.LK



075 287 1457