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சபரகமுவமாகாணகல்வித் திணைக்களம்
Sabaragamuwa Provincial Department of Education

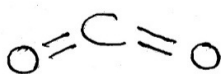
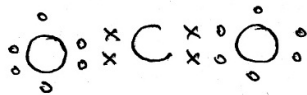

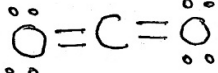
පළමුවාර්ෂිකය - 2018
முதலாம் தவணைப் பரீட்சை 2018
First Term Test – 2018

11 ශ්‍රේණිය
தரம் - 11
Grade - 11

විද්‍යාව I
விஞ்ஞானம் I
Science I

පැයවකයි
1 மணித்தியாலம்
1 Hours

■ **Answer all the questions on this paper itself.**

01. The unit which use to measure the power?
 (1) W (2) J (3) Pa (4) N
02. Which law explains that every reaction has opposite reaction which is opposite in direction and Similar in magnitude,
 (1) Law of Archimedes (2) Newton's 1st law
 (3) Newton's 3rd law (4) Ohms law
03. The mercury barrow meter is used to measure the atmospheric pressure. Which might be the height of the mercury column of the above barrow meter at the sea level?
 (1) 760 cm (2) 76 cm (3) 50 cm (4) 10 cm
04. The deficiency of which of vitamin directly effects on making gum bleeding,
 (1) A (2) B (3) C (4) D
05. Which of the followings are common for both tissue culture and for the obtaining of plants by roots,
 (1) Both are artificial propagating methods.
 (2) Both are natural propagating methods.
 (3) Both are vegetative propagating methods.
 (4) Both are producing large number offspring's.
06. The correct Lewis structure of CO₂ molecule?
 (1)  (2) 
 (3)  (4) 

07. It is essential to wear a lifesaving jacket when boating always. Which may be the scientific reason for the requirement?

- (1) It stops the floating ability on the water.
- (2) It exerts an additional up thrust to float on the water surface.
- (3) It reduces the weight of the person who is drowning.
- (4) It increases the heart rate of the drowning person.

08. Non spreading diseases are very common than spreading diseases in Sri Lanka. Select the non-spreading disease from followings,

- (1) Herpes
- (2) Hemophilia
- (3) Diabetes
- (4) Dengue

09. In making a concrete mixture, stones, sand and cement are mixed well with water to the ratio of 3 : 2 : 1. Select the sentence related to increase the strength of the mixture.

- (1) The strength is high if the composition is even.
- (2) The strength is high if the composition is uneven.
- (3) The amount of cement should be increased to increase the strength.
- (4) The strength can be increased by reducing the amount of sand in the mixture.

10. Which answer contains the characteristic of an element which is in the 1st group and the 5th period?

- (1) In gaseous state
- (2) A non-metal
- (3) Occurring fire when it is on water.
- (4) Making acidic oxides.

11. The shape of the electron cloud of the H – Cl molecule is shown below.



Select the correct statement from below.

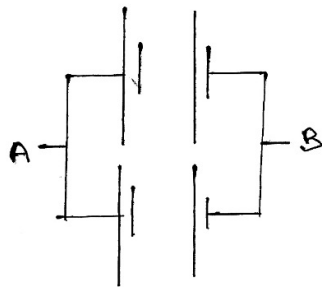
- (1) The hydrogen atoms become (-) ions and Cl atoms has turned into + ions.
- (2) An ionic bond is formed in between H and Cl.
- (3) The electronic negativity of Cl is greater than, the electronic negativity of H.
- (4) The ionization energy of H is greater than the ionization energy of Cl.

12. The common characteristic of the super kingdom Archea and Bacteria.

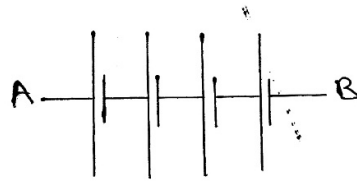
- (1) Poikilothermic (Cold blooded)
- (2) No cellular structure.
- (3) Autotrophic
- (4) No organized nucleus.

13. A torch should be made using 1.5 V batteries to get 3V out put. Select the best circuit to obtain 3V.

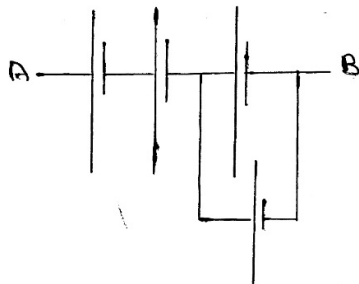
(1)



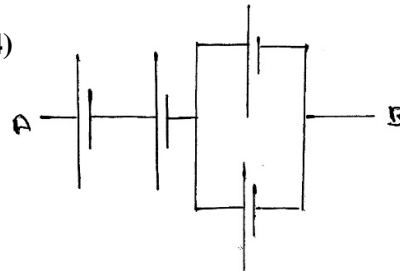
(2)



(3)



(4)



14. The following cells depicts some cells in a plant stem.

- (a) Vessels (b) Tracheids (c) Phloem cells (d) Companion cells

Which of these cells conduct water and minerals.

- (1) a and b (2) b and c (3) c and d (4) a and d

15. The countries like Sri Lanka which are situated at the equator are suitable to produce plant food.

What is the main reason for this?

- (1) There are lots of flat lands available. (2) The availability of sunlight throughout the year.
 (3) Production of chemical fertilizers. (4) Availability of more CO₂ gas.

16. The cinnamon oil is very expensive in the market. Which of extraction method is used in production

of cinnamon oil.

- (1) Simple distillation (2) Fractional distillation
 (3) Steam distillation (4) Solvent extraction

17. The sulphate of X is X₂(SO₄)₃

What may be the carbonate of X,

- (1) XCO₃ (2) X₂(CO₃)₃ (3) X₂CO₃ (4) X₃(CO₃)₂

18. One student decided to electrolyze water by the sunlight for an exhibition. Select the answer which include the test, which can be used to identify the gases produced in the above test.

- (1) Insert a splinter and shake with lime water.
- (2) Increasing a glowing splinter and inserting a non-glowing splinter.
- (3) Using lime water and using litmus.
- (4) Shaking with Fehling's and using litmus.

19. There is a 0.5 mol dm^{-3} solution of glucose and 100 ml of that is taken out of it. The mass of glucose

in that 100 ml is?

- (1) $\left(\frac{0.5}{1000} \times 100\right) g$ (2) $0.5 \times 100g$ (3) $\left(\frac{100}{1000} \times 100\right) g$ (4) $\left(\frac{90}{1000} \times 100\right) g$

20. It is said that a grown plant can absorb 22 kg of the gas Carbon dioxide during a year. Some of importance of above is mentioned below.

- (a) The occurrence of the photosynthesis.
- (b) Removing of excretory matters of organisms.
- (c) Controlling the increment of the temperature of the atmosphere.

Which of the above are correct,

- (1) a and b (2) b and c (3) a and c (4) a, b and c

21. A student wanted to get the following things done.

- (a) To remove CO_2 gas.
- (b) To remove H_2O vapours.
- (c) To identify CO_2

Which answer contain the chemicalsto the order. That can be used for above purposes.

- (1) KOH , CaCl_2 , $\text{Ca}(\text{OH})_2$ (2) KOH , Anhydrous CuSO_4 , CaCO_3
(3) CaCl_2 , KOH , $\text{Ca}(\text{OH})_2$ (4) $\text{Ca}(\text{OH})_2$, Anhydrous CuSO_4 , Calcium chloride.

22. The time consumed by 2 persons to pass a particular distance are 15 min and 20 min respectively. What the difference of above 2 persons is?

- (1) The used energy (2) Power (3) Work done (4) The height of them

23. Which answer gives an application of gene technology?

- (1) Producing passion fruit by pollinating flowers.
- (2) Producing a type of rice by hybridization.
- (3) Producing a glowing tobacco plant using a gene from a fire fly.
- (4) Obtaining high quality crops using high quality seeds.

24. Select the factors affect the kinetic energy of an object which is projected to the up.

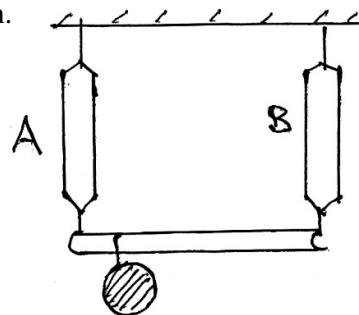
- (a) The velocity of the ball.
- (b) The mass of the ball.
- (c) The volume of the ball.

- (1) a and b
- (2) b and c
- (3) a and c
- (4) a, b and c

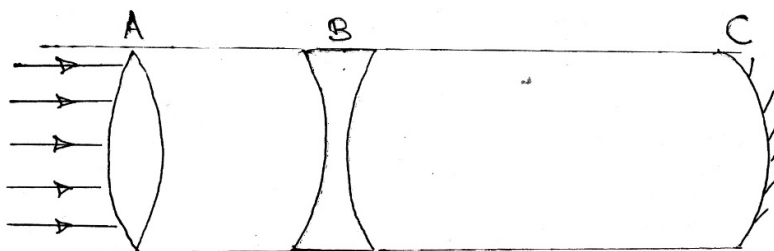
25. A light, even rod is held by two newton'sspring balances as shown.

Select the correct conclusion about the above system,

- (1) Both the readings are equal.
- (2) The reading of the A is larger than B.
- (3) The reading of the B is larger than A.
- (4) The sum of A and B is not equal to the weight of the object.



26.



Which answer gives the behavior of light,when it is passing through the above objects?

- (1) Diverging,converging, converging
- (2) converging, diverging, diverging
- (3) Converging,diverging, converging
- (4) diverging,converging, converging

27. A plant which is adapted for the wind pollination?

- (1) Rubber
- (2) Vara
- (3) Cotton
- (4) Rice

28. The main importance of the meiosis.

- (1) To maintain the half of number of chromosomes.
- (2) For the division of cytoplasm.
- (3) To maintain the consistence of the constant number of chromosome of a species.
- (4) For the asexual reproduction.

29. The benedict test was done to a sample of banana (sample A) and the blue colour was observed. The sample B of banana has given the brick - red colour for the benedict test. What could be the conclusion?

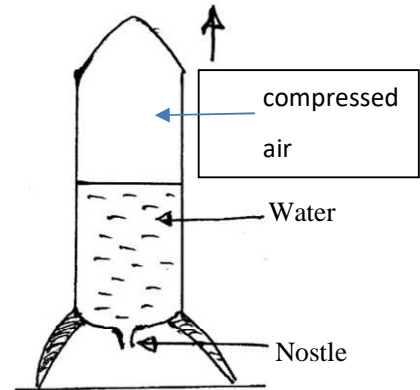
- (1) A has more starch.
- (2) B has more starch.
- (3) A has more sucrose.
- (4) B has more sucrose.

30. Which answer is correct about the movement of plants roots?

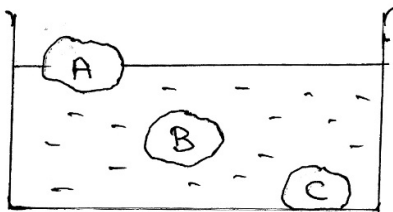
- (1) Positive phototropic (2) Positive geotropic
 (3) Positive chemotropic (4) Negative geotropic

31. The mass of a water rocket with water is 500 g. It was made for a water – rocket competition. When the water is released out from the nostril. The rocket moves up. What is the force exerted by the rocket. ($g = 10 \text{ ms}^{-1}$)

- (1) 5 N (2) 10 N (3) 50 N (4) 500 N



32.

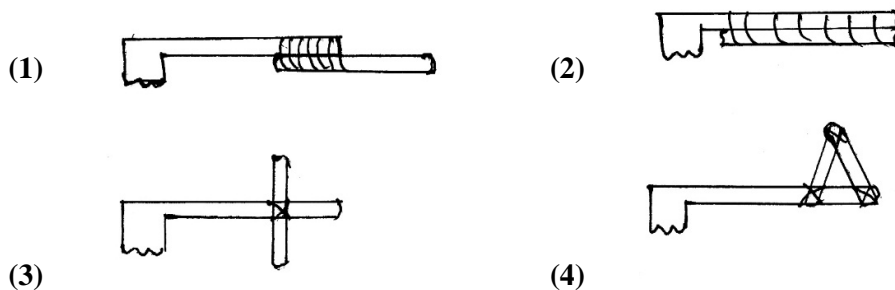


The objects A , B and C stay as shown as in a liquid. The correct sentence about the density of A,B and C objects.

- (1) The density of A is greater than the density of the liquid.
 (2) The density of B is greater than the density of C.
 (3) The density of C is greater than the density of the liquid.
 (4) The density of A is greater than the density of C.

33. A part of the handle of a key is broken as shown below and an additional part is fixed in to the key as below..

What is the easiest method of opening the door?



34. The volume of a sound can be increased by tuning the volume controller. What is happening here?

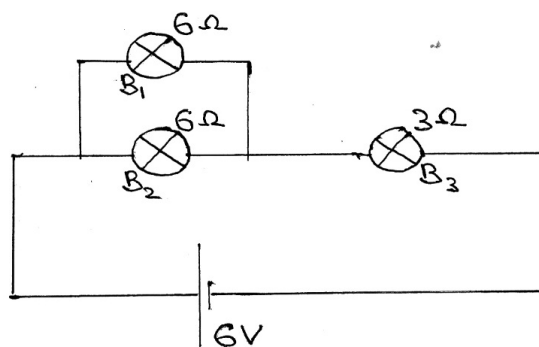
- (1) The reduction of the resistance. (2) The incensement of the resistance.
 (3) The increment of the voltage. (4) The decrement of the voltage.

35. One radio Channel is turned at 80 MHz. What is meant by the MHz of a wave.

- (1) Velocity (2) Coldness (3) Amplitude (4) Frequency

36. The shown $6\ \Omega$ and $3\ \Omega$ bulbs are connected to the 6V battery. What is the current flowing through the bulb B is,

- (1) $0.5\ \text{A}$ (2) $1\ \text{A}$ (3) $2.5\ \text{A}$ (4) $4\ \text{A}$



37. The following are some of the reasons for the high consumption of fuel by buses.

- (a) The buses are moving with uniform velocity.
(b) They move always with an acceleration.
(c) They move with regular stoppings.

Which of the above are really affecting on the high fuel wastage.

- (1) a and b (2) b and c (3) a and c (4) a, b and c

38. A use of paper chromatography is,

- (1) Separating component from a mixture.
(2) Separate different colours from a mixture.
(3) Measuring the concentration of component of a mixture.
(4) Separating gaseous components from a mixture.

39. The human – elephant conflict, kidney diseases and garbage problem are the problems not yet solved in Sri Lanka. Which of the below can be used to reduce the above problems.

- (1) Importing food from the countries which use organic – farming.
(2) Making strong stable fences around forests.
(3) Organizing practical workshop for environmental education.
(4) Banning highly toxic agro – chemicals.

40. (a) The number of accidents in highways are lesser than in normal roads in Sri Lanka.

- (b) It is prohibited to enter bicycles and three wheelers to the high way.
(c) Passengers on the buses of high way have a last destination rather than getting down regularly.

Which of the followings could be concluded by the above statement.

- (1) Buses, three-wheelers and bicycle normally face accidents.
(2) The accidents can be reduced by allowing all the vehicles to the highway.
(3) All the buses face an accidents equally.
(4) Accidents can be reduced by making high ways only.