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சபரகமுவ மாகாண கல்வித் திணைக்களம்  
Sabaragamuwa Provincial Department of Education

දෙවන වාර පරීක්ෂණය 2018  
இரண்டாம் தவணைப் பரீட்சை 2018  
Second Term Test 2018

11 ශ්‍රේණිය  
தரம் 11  
Grade 11

විද්‍යාව  
விஞ்ஞானம்  
Science

පැය 1 යි  
1 மணி  
1 hour

■ Answer all the questions.

- What is the unit used to measure the pressure?  
1. Nm                      2. J                      3.  $Nm^{-2}$                       4.  $Js^{-1}$
- Which of the factor effecting on photosynthesis, that it is hard to set a controller?  
1.  $H_2O$                       2. Oxygen                      3. Sunlight                      4.  $CO_2$
- Select the correct instance where the vapouration taken place.  
1. At the melting point                      2. At the boiling point  
3. At the freezing                      4. At the room temperature
- A type of non granular white blood cells.  
1. Monocyte                      2. Basophile                      3. Neutrophil                      4. Eosinophil
- Which of the following creatures shown a closer relationship with a Vertebrates.  
1. jelly fish                      2' star fish                      3' cockroach                      4' octopus
- Which of the radiation of the sun's spectrum is responsible of making cracks on walls.  
1. Cyst ray                      2. IR ray                      3. Ultraviolet                      4. X ray
- Which of the following structures given below contributes the least for the mechanical support in a cell.  
1. Nuclear                      2. E.R.                      3. Cell wall                      4. Vacuole
- A ladder should not be supported on a smooth wall, Why is that?  
1. Less reaction is occurred by the cement hall.  
2. High friction is created in between the ladder and wall

3. Lack of friction in between the ladder and a wall
4. Less reaction force occurred by the ladder on the ground.
9. It was found that a person who suffer from a disability in speaking has a damage in the brain, Which part of the brain might have got damaged?
1. Cerebrum    2. Cerebellum    3. Spine    4. Pituitary
10. When body system help for a cricketer to coordinate eyes ,legs and hand for batting.
1. Digestive    2. Reproduction    3.Nervous system    4. Endocrine
11.  $\text{SiO}_2$  is a covalent compound whereas  $\text{NaCl}$  is an ionic, while both the compounds are having high boiling point, Which is the correct reason for this,
1. Lattice structure    2. ionization in water    3. Polarity    4. existing in the solid form
12. Which of property of salt is used to separate different types of salts formed in the salterns.
1. Ionic property    2. Density
3. Elect conductivity    4. Solubility
13. The following chemical reactions takes place in Living organisms.
- $$\text{Carbon dioxide} + \text{water} \xrightarrow[\text{Chlorophyll}]{\text{Sunlight}} \text{Glucose} + \text{Oxygen}$$
- Select the correct answer related to the above equation,
1. Decomposing reaction    2. Exothermic reaction
3. Endothermic reaction    4. Single displacement reactions.
14. At which stage of matured female, the thickest endometrium walls are presents.
1. Menstrual stage    2. proliferation stage
3. Secretory stage    4. At the ovulation stage
15. A bat creates a sound with the frequently 25 000 Hz. Find the wave length of the wave If the speed of it is  $330 \text{ ms}^{-1}$
1. 75.75 cm    2. 1.32 cm
3. 1.32 m    4. 7.57 m
16. Where does the ultrafiltration takes place in the kidney,
1. At the loop of Henley and blood vessels.
2. At collecting ducts and blood vessels.
3. Glomerulus and the bowman's' capsule.
4. Bauman's capsule and the loop of Henley.

17. Which of the cell organelle is important in mechanical support in herbaceous plants?

- |                    |                   |
|--------------------|-------------------|
| 1. Cell wall       | 2. Cell membranes |
| 3. Golgi Apparatus | 4. Vacuole        |

18. Considers the following statements related to the hepatic portal vein?

- It consistsf blood with high glucose level.
- Starting with an organ and finishing with an another organ.
- Blood flows towards the heart.

which of the above features are unique features for the hepatic portal vein only.

- |            |                |
|------------|----------------|
| 1. a and b | 2. b and c     |
| 3. a and c | 4. a , b and c |

19. The following information was mentioned on a bulb.

15 w / 320 v / 50 Hz

What measurements are given below respectively.

- |                                |                              |
|--------------------------------|------------------------------|
| 1. force , voltage , frequency | 2. Power , force , current   |
| 3. Voltage , current, force    | 4. Power, voltage, frequency |

20. The amount of urine released in a Hot day is less than in a cold day. Which hormone is directly effecting on this incident.

- |            |               |        |       |
|------------|---------------|--------|-------|
| 1. Insulin | 2. Calcitonin | 3. ADH | 4. GH |
|------------|---------------|--------|-------|

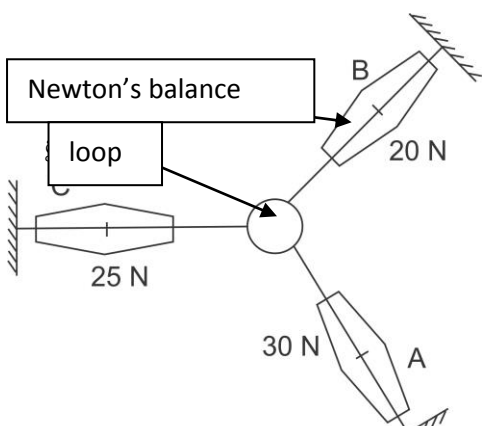
21. The following table gives information about 2 elements.

	Atomic numbers	Mass numbers	Relative atomic mass	Valance
P	6	12	12	4
Q	13	27	27	3

It is essential to obtain  $6.022 \times 10^{23}$  amount of atoms from both of the types. Which of the following method can be used for chat?

- Calculate the amount of atoms with the help of chests.
- Weigh 2 g from P and 27 g s from Q.
- Weigh 6 g from P and 13 g s from Q.
- 4 g from P and 3 g s from Q.

22. The following system is at the equilibrium. The resultant force of A and B can be,

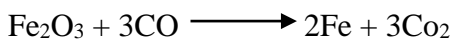


- 50 N, in between A and B.
- 25 N, in between A and B.
- 25 N, opposite to the C.
- 75 Nm in between C and A.

23. All the 3 metals of zinc lead and silver are Grey in colour. What method can be used to identify them separately.

- |   |                                       |
|---|---------------------------------------|
| 1. Calculate the density of each metal    | 2. Make them react with dilute acids. |
| 3. Testing the conductivity of electrons. | 4. Compare the malleability of        |

24. The following equation resembles the method of extracting iron.



(Fe = 56, O = 16, C = 12) Find the quantity of Fe<sub>2</sub>O<sub>3</sub> needed to produce 1120 kg of Fe.

- |           |            |            |            |
|-----------|------------|------------|------------|
| 1. 714 kg | 2. 1000 kg | 3. 1120 kg | 4. 1600 kg |
|-----------|------------|------------|------------|

■ 5 kg and 50 kg objects are falling freely in a vacuum.

25. 2 s were taken to fall the 50 kg object down. What is the height that the 50 kg object has come from? (g = 10 ms<sup>-2</sup>)

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. 50m | 2. 10m | 3. 20m | 4. 30m |
|--------|--------|--------|--------|

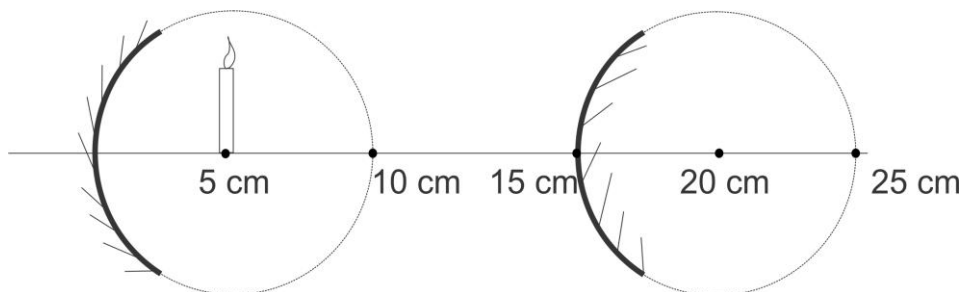
26. Find the correct statement related to above 2 objects.

1. The 50 kg object first falls.
2. The speed of 50 kg object is higher than the speed of 5 kg object.
3. Both of the two objects are falling down at ones.
4. The velocity of 5 kg object is greater than the velocity of 50 kg object.

27. <sup>73</sup><sub>32</sub>Ge is the symbol of Germanium. Which answer gives the number of protons and neutrons respectively,

- |           |           |           |           |
|-----------|-----------|-----------|-----------|
| 1. 73, 32 | 2. 32, 73 | 3. 32, 41 | 4. 41, 32 |
|-----------|-----------|-----------|-----------|

28.



Selecting the correct option which given the properties of the candle – L by the mires A and B,

	A	B
1	Virtual, upside down diminished	Real, Upright diminished
2	Virtual, upright, magnified	Virtual, upside down magnified

3	Virtual, upright magnified	Real, upside down, diminished
4	Real, upside down, equal to the size of the object	Virtual, upright, diminished

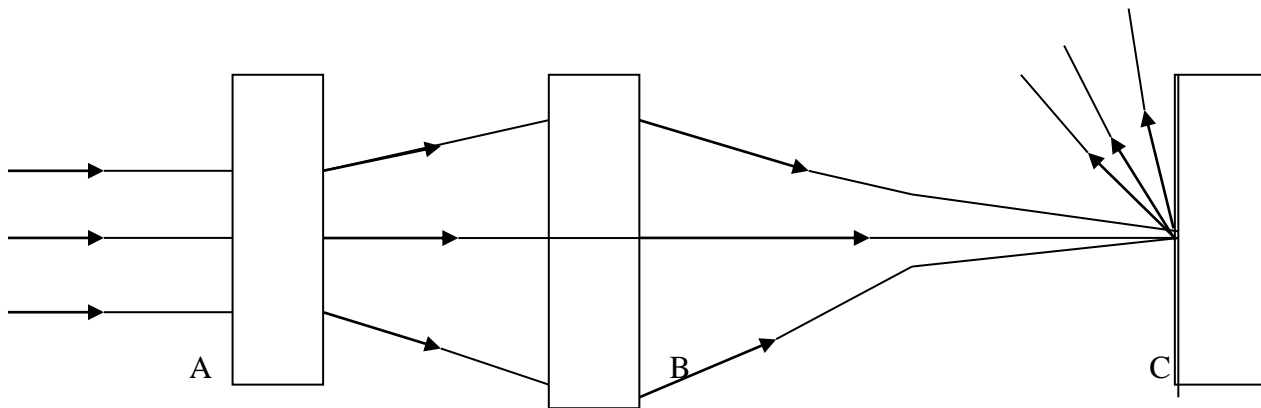
29. The following diseases are seen among humans.

- a) Asbestosis
- b) Syphilis
- c) Herpes
- d) Thrombosis

Which of above diseases are sexually trained diseases?

1. a and b      2. b and c      3. c and d      4. a and d

30. The following diagram shows the way of trevally light thruway some equipment's.



Which could be the A, B, C in the order,

- 1. Concave lens, convex lens, plane mirror
- 2. Convex lens, Concave lens, plane mirror
- 3. Concave lens, convex lens, convex lens
- 4. Convex mirror, concave mirror, concave lens

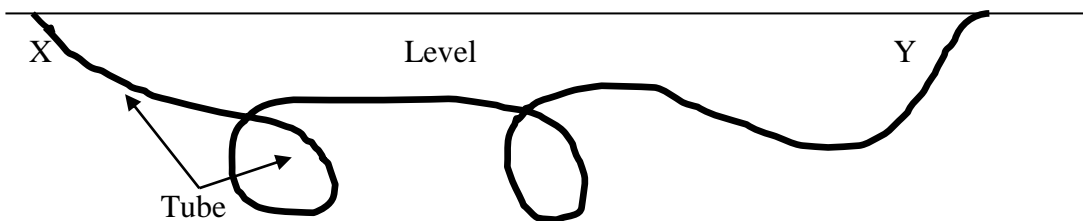
31. What could be the amount of the electrical units used per a month (30 days). If 100 w refrigerator is used 12 hours per a day?

1. Units 12      2. Units 24      3. Units 360      4. Units 1200

32. What is the real concentration of a cup of tea if 10 g of sugar is dissolved in 200 g of water?

1.  $\frac{200}{10} \times 100\%$       2.  $\frac{10}{200} \times 100\%$       3.  $\frac{100}{210} \times 100\%$       4.  $\frac{210}{10} \times 100\%$

33. Masons use a tube filed with water.



To mark the level,

1. It is important to mark the same levels on the water surface.
2. The pressure of liquid equal in same levels.
3. Archimedes law is used for this event.
4. This method is cheap.

34. The following stones have been kept on each other by a person who tries to improve the concentration. By which principle of science the bellows incident can be explained.

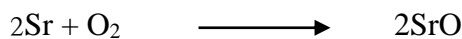


1. Moment of force
2. Momentum
3. Equilibrium of forces
4. Resultant force

35. It is mentioned that a kettle with 1500 W should be connected to a plug point of 15 A rather than connecting to a 5 A plug point. If this is connected to a 230v ,find the amount of current passing through this,

1. 1.5 A
2. 6.5 A
3. 15.3 A
4. 100 A

36. The following 2 equations are an examples for balanced chemical equations.



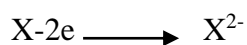
Which can be the formula of the compound in between Sr and Br,

1.  $\text{SrBr}_2$
2.  $\text{SrBr}$
3.  $\text{Sr}_2\text{Br}$
4.  $\text{Sr}_2\text{Br}_3$

37. What is the molar mass of  $\text{CO}(\text{NH}_2)_2$  (C=12 , O=16, N=14, H=1)

1.  $46 \text{ g mol}^{-1}$
2. 60 g
3. 46 g
4.  $60 \text{ g mol}^{-1}$

38. The following equation is for the ionization of an atom. X is not the real symbol,



the following ideas are about X,

- a. The valance of X is 2.
- b. X has 6 electrons at the last shell.
- c. X is metal.

Which is correct about X,

1. a and b
2. b and c
3. a and d
4. a and c

39. There was a rapidly speeding disease in the southern provide recently. What was the system mostly affected by that,

1. Respiratory system
2. Digestive system
3. Nervous system
4. Digestive system

40. The people in the province Sabaragamuwa are frequently affected by the flood and land sliders. What could be the most suitable option to reduce the effect,
1. Eradicating people from those areas in rainy season.
  2. Giving red warnings and distributing aids.
  3. Grading lands as suitable places for housing and non – suitable places for housing.
  4. Make a big sound against the environmental destructions.