



Minuwangoda Education Zone

Second Term Test - 2025

Grade 11

Science

Name :

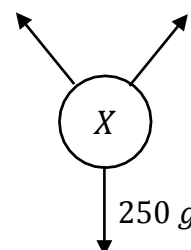
Time - 1 hours

Part – I

* Answer all questions.

- 1) The international standard unit of measuring energy is,
(i) Watts (iii) Amphere
(ii) Joule (iv) Volt
- 2) Which of the following substance is not an excretory substance?
(i) Urea (iii) Carbon dioxide
(ii) Uric acid (iv) Faecal matter
- 3) The acid directly involved in human digestion is,
(i) citric acid (iii) Sulphuric acid
(ii) Hydrochloric acid (iv) Lactic acid
- 4) The molecular formula of water is H_2O . Find the number of atoms in 18g of water. ($H = 1, O = 16$)
(i) 6.022×10^{23} (iii) $6.022 \times 10^{23} \times 3$
(ii) $6.022 \times 10^{23} \times 2$ (iv) $6.022 \times 10^{23} \times 18$
- 5) What is the main component that transports CO_2 in the blood?
(i) Red blood cells (iii) Platelets
(ii) White blood cells (iv) Blood plasma
- 6) Butterfly, Spider and prawns belong to phylum Arthropoda. The common feature of all of them is,
(i) having a larva stage (iii) having jointed appendages
(ii) being herbivores (iv) having a moist skin
- 7) Find the balanced chemical equations.
A. $CaCO_3 \rightarrow CaO + CO_2$
B. $C_6H_{12}O_6 + O_2 \rightarrow CO_2 + H_2O$
C. $Zn + 2HCl \rightarrow ZnCl_2 + H_2$
D. $NaOH + H_2SO_4 \rightarrow Na_2SO_4 + H_2O$
(i) A and B (ii) B and D (iii) A and C (iv) C and D

- 8) The scientist who first demonstrated the relationship between potential difference and current when an electric current flows through a conductor is,
- (i) Ohm (iii) Newton
(ii) Michael Faraday (iv) Edison
- 9) A tuning fork with the frequency of 256 Hz was vibrated in air. If the speed of sound in air is 330 ms^{-1} , find the wavelength of it.
- (i) $330 \times 256 \text{ m}$ (iii) $\frac{330}{256} \text{ m}$
(ii) $\frac{256}{330} \text{ m}$ (iv) $\frac{330}{2 \times 256} \text{ m}$
- 10) Which substance is broken down to form urea in liver?
- (i) Lipid (iii) Glycogen
(ii) Glucose (iv) Amino acids
- 11) The atomic number of the element x is 19, and the mass number is 39. Select the correct statements/s
- (A) The number of electrons in an atom x is 39
(B) The number of protons in an atom x is 19
(C) The number of neutrons in an atom x is 39
(D) The number of neutrons in an atom x is 20
- (i) Only A and B are correct (iii) Only A and D are correct
(ii) Only B and C are correct (iv) Only B and D are correct
- 12) Saman walked 4 km east from his house and then 8 km to north. The current position relative to the initial position is,
- (i) 7 km North (iii) 7 km North - East
(ii) 5 km North-East (iv) 5 km South - West
- 13) Select an enzyme which involves for digestion of protein
- (a) Amylase (b) Trypsin (c) Lipase (d) Pepsin
- (i) a and c (ii) b and c (iii) b and d (iv) c and d
- 14) Which of the following is an underground stem?
- (i) Carrot (iii) Potato
(ii) Sweet potato (iv) Beet root
- 15) The ring X is in equilibrium state under the forces. Find the resultant force on it.
- (i) 250 g vertically upwards
(ii) zero
(iii) 250 g vertically downwards
(iv) None of the above
- 16) The force that should apply to an object with 8 kg for giving acceleration of 3 ms^{-2} is,
- (i) 3 N (iii) $\frac{8}{3} \text{ N}$
(ii) 24 N (iv) 8 N



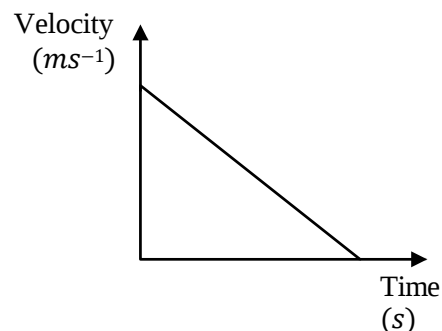
17) Which of the following ions has the same number of electrons as Sodium ion. (Na^+)

- (a) Cl^- (b) O^{2-} (c) Mg^{2+} (d) Ca^{++}

- (i) a and b (ii) b and c (iii) a and c (iv) b and d

18) The corresponding motion for the given velocity - time graph is,

- (i) Motion of a hydrogen balloon released from rest
(ii) The moving train coming to a rest
(iii) The motion of a coconut, that detaches from the stalk
(iv) The motion of a ball rolling down an inclined plane



19) The vein that contains oxygenated blood in the human circulatory system is,

- (i) Pulmonary veins (iii) Hepatic portal vein
(ii) Inferior venacava (iv) Superior venacava

20) It is not a salt in sea water

- (i) $MgSO_4$ (ii) $NaCl$ (iii) $CaSO_4$ (iv) NH_4Cl

21) The phenomenon that cannot be explained by the intermolecular attractions between water molecules is,

- (i) High specific heat capacity of water
(ii) Evaporating water at any temperature
(iii) Having a higher density than that of ice
(iv) Having high boiling point

22) Consider the given statements regarding the genetics.

x – The factors that carry from one generation to another are called genes.

y – The expression of the gene pairs responsible for a particular character is called the gene expression of that organism

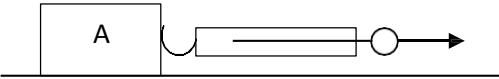
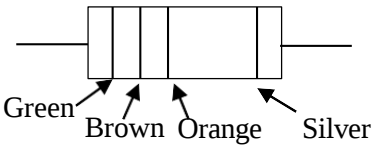
z – The genes that present in the same chromosome which are not segregated independently are known as linked genes.

Correct statements are

- (i) x and y (iii) x and z
(ii) y and z (iv) x, y and z

23) The function of vitamin A is,

- (i) For the proper functioning of nervous tissue
(ii) Producing visual pigments, important for vision
(iii) Producing the components needed for blood clotting
(iv) Contributes for the formation of teeth & bones

- 24) It is a single displacement reaction
- $CaCO_3 \rightarrow CaO + CO_2$
 - $2KBr + Cl_2 \rightarrow 2KCl + Br_2$
 - $CO_2 + C \rightarrow 2CO$
 - $BaCl_2 + Na_2SO_4 \rightarrow BaSO_4 + 2NaCl$
- 25) The body temperature of a healthy man is $37^\circ C$. The Kelvin value is,
- 310K
 - 236K
 - $-236K$
 - K
- 26) The object A is connected to a Newton spring balance and displaced 2m on the surface of a table. If the reading of the Newton balance is 500g, find the work done by force.
- 100 J
 - 1000 J
 - 10 J
 - 1 J
- 
- 27) A relatively slow reaction is,
- burning a match stick
 - rusting of Iron
 - burning of a magnesium strip
 - reaction between Mg and HCl acid
- 28) It is a solid-solid homogeneous mixture,
- Salt solution
 - Stone, sand, cement mixture
 - Brass
 - Alcohol solution
- 29) It is a complex permanent tissue,
- Sclerenchyma tissue
 - Parenchyma tissue
 - Collenchyma tissue
 - Phloem tissue
- 30) It is not a characteristic of sexual reproduction
- Offsprings are identical
 - Occuring meiosis
 - Having two organisms as mother and father
 - Producing gametes
- 31) The specific heat capacity of water is $4200 Jkg^{-1}C^{-1}$. The amount of heat required to raise the temperature of 300g of water from $20^\circ C$ to $300^\circ C$ is,
- 332 J
 - 1008 J
 - 100.8 KJ
 - 332 KJ
- 32) The resistance value of the following resistor is,
- 51 Ω
 - 51 K Ω
 - 15 Ω
 - 513 Ω
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- 33) Below are some patterns of classification of living organisms
- A – animals with wings, animals without wings
- B - plants, shrubs, trees

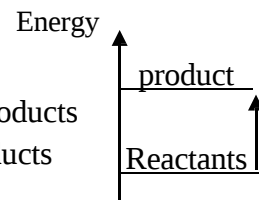
C – prokaryotic and eukaryotic
D – swimming organisms and flying organisms

The natural classification includes,

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|----------------------------|-------------------------------|
| (i) only <i>A</i> | (iii) Only <i>C</i> |
| (ii) <i>B</i> and <i>D</i> | (iv) <i>A, B</i> and <i>D</i> |

34) The following graph shows a heat change associated with a chemical reaction.

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|--|
| (i) It is exothermic and the energy of the reactions is greater than the energy of products |
| (ii) It is endothermic and the energy of the reactants is less than the energy of products |
| (iii) It is exothermic and the energy of reactants is less than the energy of products |
| (iv) It is endothermic and the energy of the reactant is greater than the energy of products |



35) 18 g of glucose is dissolved in 500 cm³ of water. Find the concentration of the solution

- | | |
|-------------------------------|--------------------------------|
| (i) 0.02 mol dm ⁻³ | (iii) 2 mol dm ⁻³ |
| (ii) 0.2 mol dm ⁻³ | (iv) 20.0 mol dm ⁻³ |

36) It is an inherited characteristic of a man.

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| (i) Having growth muscles due to exercise. |
| (ii) The occurrence of a woman's menstrual cycle |
| (iii) Children's milk teeth falling out |
| (iv) Having attached earlobes |

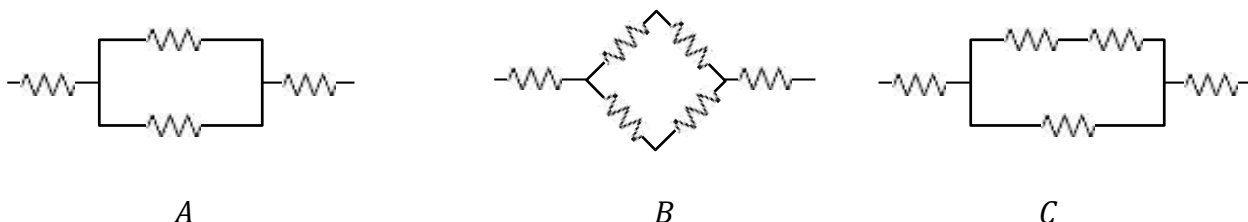
37) The correct answer for the scientific name of Asoka Pethiya is,

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|---------------------------|----------------------------|
| (i) <i>Puntius asoka</i> | (iii) <i>Puntius Asoka</i> |
| (ii) <i>puntius asoka</i> | (iv) <i>PUNTIUS ASOKA</i> |

38) The answer that includes metals in ascending order of reactivity is,

- | | |
|----------------------------|-----------------------------|
| (i) <i>pb, Sn, Fe, Zn</i> | (iii) <i>Sn, Fe, pb, Cu</i> |
| (ii) <i>Cu, pb, Fe, Sn</i> | (iv) <i>Zn, Fe, pb, Cu</i> |

39) The following apparatus were prepared by using same type of resistors.



Find the answer, when the equivalent resistances are arranged in descending order,

- | | | | |
|--------------------|---------------------|----------------------|---------------------|
| (i) <i>A, B, C</i> | (ii) <i>A, C, B</i> | (iii) <i>C, B, A</i> | (iv) <i>B, C, A</i> |
|--------------------|---------------------|----------------------|---------------------|

40) It is a suitable method that should be followed to control the domestic electricity consumption.

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| (i) Minimizing the use of heating electrical appliances |
| (ii) Using cloths without ironing |
| (iii) Disconnecting the refrigerator |
| (iv) Using filamentous bulbs for reading |