

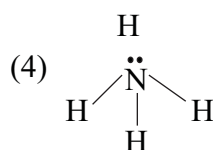
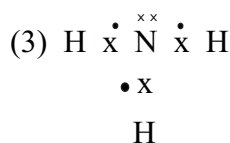
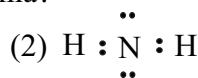
විශ්වාසීය தரம் } 11 Grade }	විෂයය பாடம் } Science Subject }	පත්‍රය வினாத்தாள் } I Paper }	කාලය காலம் } 01 h Time }
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Important :

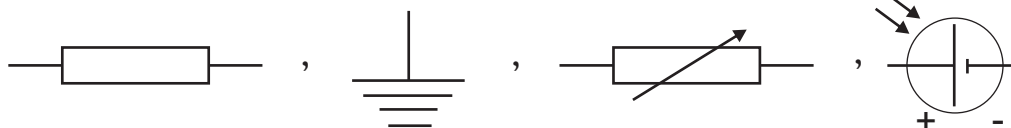
- (i) Answer all questions
- (ii) In each of the questions 01 to 40, pick one of the alternatives (1), (2), (3), (4) which you consider as correct or most appropriate answer.
- (iii) Mark a cross (✖) on the number corresponding to your choice in the answer sheet provided.

- (01) What is the animal phylum which consist a water vascular system?
 (1) Cnidaria (2) Arthropoda
 (3) Echinodermata (4) Mollusca
- (02) The acid which is used for drying gases,
 (1) HCl (2) H₂SO₄ (3) HNO₃ (4) CH₃COOH
- (03) The SI unit of velocity is,
 (1) ms⁻¹ (2) ms (3) Nm⁻² (4)ms⁻²
- (04) The enzyme which acts in acidic medium in human digestive system is,
 (1) Amylase (2) Pepsin (3) Trypsin (4) Lypase
- (05) Particles that are present in the nucleus of an atom,
 (1) only protons (2) only electrons
 (3) protons and neutrons (4) Neutrons and electrons
- (06) Weight of the object in air when the object is immersed in water , is Y. Weight of the displaced water is Z. What's the correct relationship between W,Y and Z ?
 (1) Y - W = Z (2) W - Y = Z (3) Y + X = Z (4) X = Y = Z
- (07) The genetical disorder which is caused due to the mutation of a chromosome which produces haemoglobin is,
 (1) Haemophilia (2) Thalassemia
 (3) Anaemia (4) Albinism

(08) What is the correct lewis structure of Amonia?



(09) What is the correct order of following circuit symbols one?



- (1) Solar cell, earth, variable resistor, resistor.
 (2) Resistor, earth, variable resistor, solar cell.
 (3) Resistor, variable resistor, solar cell, earth.
 (4) Earth, resistor, variable resistor, solar cell.

(10) The substance which **is not** present in the glomerular filtrate of a healthy person is,

- (1) Proteins (2) Glucose
 (3) Amino Acids (4) Uric acid

(11) The chemical formula of the carbonate of X is XCO_3 . What is the chemical formula of the phosphate of X?

- (1) XPO_4 (2) X_2PO_4 (3) $\text{X}_2(\text{PO}_4)_3$ (4) $\text{X}_3(\text{PO}_4)_2$

(12) Which of the following **can not** occur due to the forces acting on an object,

- (1) To Change the mass (2) To Change the shape
 (3) To Change the velocity (4) To Change the direction

(13) What is the hormone which converts Glycogen into Glucose in the human body?

- (1) Insulin (2) Thyroxin (3) Glucogen (4) Calcitonin

(14) What is the atom/ion which consists noble gas configuration?

- (1) Ne /B (2) Ar/Be (3) He/H (4) $\text{Na}^+/\text{O}^{2-}$

(15) What happen when a wave passes through water?

- (1) Water particles move with water.
 (2) Water particles do not move.
 (3) The energy of the wave is not wasted.
 (4) The energy transmitted through the wave.

(16) Sperms are temporarily stored in ,

- (1) Seminiferous tubles (2) Epididymis
 (3) Vas deferens (4) Prostrate glands

(17) The factor that does **not** affect on the rate of reaction is,

- | | |
|------------------------------------|---------------------------------|
| (1) Surface area of the reactants. | (2) Temperature of the reaction |
| (3) Concentration of the reactants | (4) pH value |

(18) To which part the Service fuse and a switch should be connected in the house hold circuit,

- (1) To the Live wire
- (2) To the Live wire and Neutral wire.
- (3) To the Neutral wire and Live wire.
- (4) only to the Neutral wire.

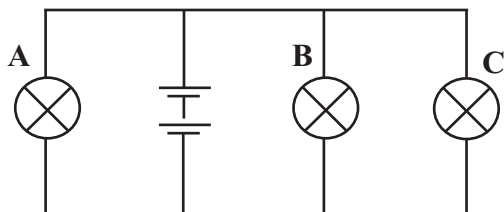
(19) Most affected human body system as a result of corona virus is,

- | | |
|------------------------|------------------------|
| (1) Digestive system | (2) Respiratory system |
| (3) Circulatory system | (4) Nervous system |

(20) Out of the following reactions what is the an endothermic reaction?

- | | |
|--------------------------------|--------------------------|
| (1) Combustion of methane | (2) Cellular respiration |
| (3) Decomposition of limestone | (4) Acid - base reaction |

(21)



What is the correct statement regarding the bulbs A,B and C in the following circuit?

- (1) All the bulbs are connected in series.
- (2) B and C bulbs are connected paralel.
- (3) All the bulbs are connected in paralel
- (4) B and C bulbs are connected in series A bulb is connected in paralel

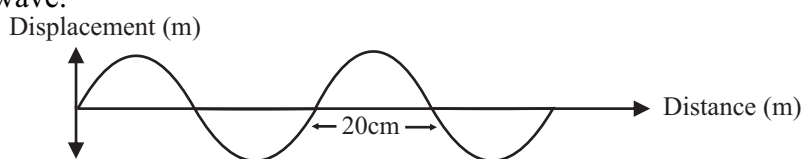
(22) Biological molecules which contain nitrogen are,

- | | |
|-------------------------------|--------------------------------|
| (1) Carbohydrate and lipids. | (2) Protein and lipids. |
| (3) Carbohydrate and proteins | (4) Protein and nucleic acids. |

(23) What is / are the product / s which form when magnesium reacts with steam?

- | | |
|---|--------------------------|
| (1) MgO | (2) Mg (OH) ₂ |
| (4) Mg (OH) ₂ , H ₂ | (4) MgO, H ₂ |

(24) Following diagram shows how a wave propagated in 0.1 second. Find the velocity of that wave.



- (1) 0.2 ms^{-1} (2) 0.4 ms^{-1} (3) 0.8 ms^{-1} (4) 1 ms^{-1}

(25) What is the **incorrect** statement regarding photosynthesis?

- (1) Takes place in the parenchyma tissue of plant leaf
 (2) Main product of photosynthesis is glucose
 (3) The source of releasing oxygen during the photosynthesis is water
 (4) photosynthesis rate is high in green colour light

(26) Out of the following what is the balanced chemical reaction?

- (1) $2\text{N}_{2(g)} + 3\text{H}_{2(g)} \longrightarrow 2\text{NH}_{3(g)}$
 (2) $2\text{Fe}_2\text{O}_{3(s)} + 3\text{CO}_{(g)} \longrightarrow 2\text{Fe}_{(l)} + 3\text{CO}_{2(g)}$
 (3) $2\text{Al}_{(s)} + 6\text{HCl}_{(aq)} \longrightarrow 2\text{AlCl}_{3(aq)} + 3\text{H}_{2(g)}$
 (4) $\text{CH}_{4(s)} + 2\text{O}_{2(g)} \longrightarrow \text{CO}_{2(g)} + 2\text{H}_2\text{O}_{(g)}$

(27) What is the amount of heat required to increase the temperature of 5kg of water by 40°C

(Specific heat capacity of water is $4200 \text{ J kg}^{-1} \text{ K}^{-1}$)

- (1) 47.6 KJ (2) 168 KJ (3) 200 KJ (4) 840 KJ

(28) What is the correct statement about a cell organelle and its function?

Organelle	Function
(i) Mitochondria	Produce energy
(ii) Ribosome	Protein synthesis
(iii) Nucleus	Control cellular activities
(iv) Golgi complex	Produce secretory substances

(29) What is the purpose of using CaCO_3 when extracting iron in a blast furnace?

- (1) To increase the temperature inside the blast furnace
 (2) To remove unnecessary substances in iron as slag.
 (3) Reduction of Haematite
 (4) To remove CO_2 Produced inside the blast furnace

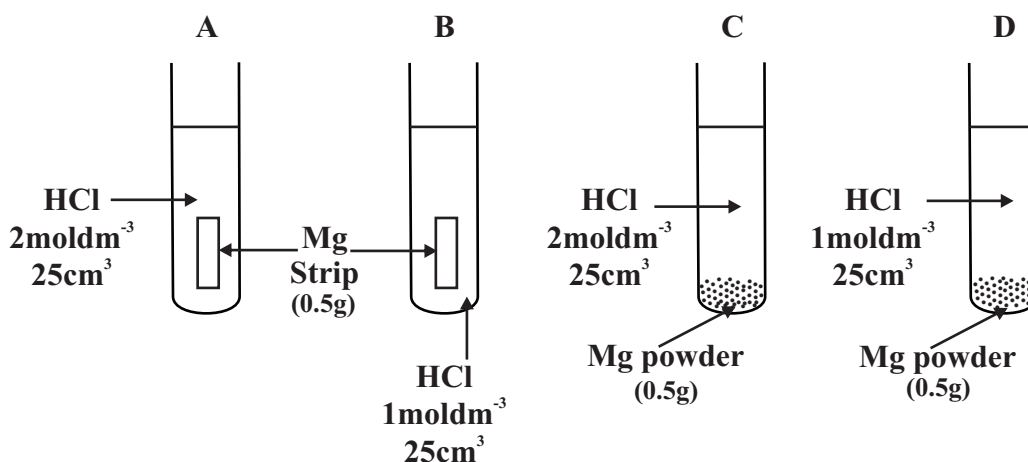
(35) Out of the following answers which answer shows the change that takes place at the carbon electrodes when Aqueous NaCl solution is electrolysed?

- (1) Releasing H_2 near the (+) ve terminal
- (2) Production of NaOH in the solution
- (3) Reduction takes place at the anode.
- (4) Evolving of Cl_2 gas near the cathode.

(36) What is the equivalent resistance of $20\ \Omega$ and $30\ \Omega$ resistors connected parallelly?

- (1) $12\ \Omega$
- (2) $25\ \Omega$
- (3) $50\ \Omega$
- (4) $60\ \Omega$

(37) Following four apparatus are set to find the rate of reaction between Mg and HCl.



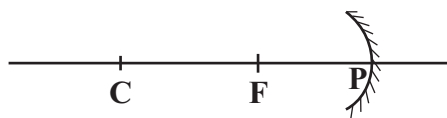
Which tube has the highest rate of reaction.

- (1) A
- (2) B
- (3) C
- (4) D

(38) Process that **does not** need bacteria in the nitrogen cycle is ,

- (1) Nitrification.
- (2) Fixation.
- (3) Atmospheric fixation.
- (4) Ammonification.

(39) At what point should the face be kept when shaving using a concave mirror?



- (1) Between F and P
- (2) Between C and F.
- (3) At C
- (4) At F

(40) What are the health impacts caused by the depletion of ozone layer to the human? ,

- (1) Causes heart diseases .
- (2) Causes skin cancers
- (3) Causes respiratory problems
- (4) Causes kidney disorders.