

බස්නාහිර පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව மேல் மாகாணக் கல்வித் திணைக்களம் Department of Education - Western Province			
වර්ෂ අවසාන අගයීම් ஆண்டாறு மதிப்பீடு - 2017 Year End Evaluation			
ශ්‍රේණි தரம் } 10 Grade	විෂය பாடம் } Science Subject	පත්‍රය கருத்துக்கள் } I Paper	කාලය காலம் } 01 h Time

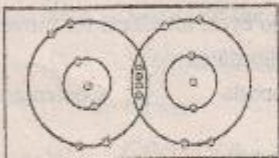
Important :

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

(01) Select the disaccharide from given answers.

(1) Galactose	(2) Lactose
(3) Fructose	(4) Cellulose

(02) What is this molecule and bonding type of it.

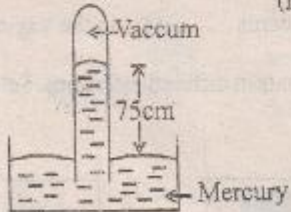


(1) Nitrogen molecule / Covalent bond
(2) Water molecule / Covalent bond
(3) Oxygen molecule / Ionic bond
(4) Oxygen molecule / Covalent bond

(03) Out of the following which is **not** a genetically transferred characteristic of human?

(1) Nature of ear	(2) Skin colour
(3) Patches in the skin	(4) Colour of hair

(04) What is the atmospheric pressure in this mercury barometer?
 (Density of Hg = 13600 kgm^{-3} , $g = 10 \text{ ms}^{-2}$)

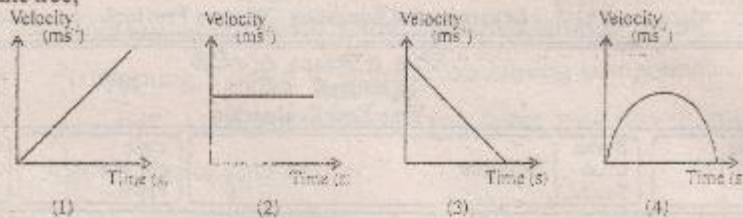


(1) 75 Pa
(2) $\frac{75}{100} \times 13600 \times 10 \text{ Pa}$
(3) $75 \times 13600 \times 10 \text{ Pa}$
(4) 13600 Pa

(05) Which factor out of the following **does not** have an effect on friction between the tyres of a motor car and the surface.

(1) Nature of the surface	(2) Nature of the tyre surface
(3) Width of the tyres	(4) Weight of the motor car

(06) Select the correct velocity - time graph which shows the movement of a coconut falling from the tree,



(07) What is the acceleration if 10N force is applied to a bicycle of 2.5kg mass which is moving with a constant velocity?

- (1) 0.4ms^{-2} (2) 2.5ms^{-2} (3) 10ms^{-2} (4) 250ms^{-2}

(08) Select the correct statement,

- (1) A unicellular organism has an organelle level body organization
 (2) A group of cells adapted for a special task is called a tissue
 (3) Man is an autotrophic organism
 (4) Plants breathe only at night

(09) What is the element out of the following?

- (1) Brass (2) Steel (3) Water (4) Helium

(10) Which phylum has animals with a heart, a brain, no eyes, tubefeet for movement & respiration, and shows evolutionary relationships to chordates,

- (1) Annelida (2) Echinodermata (3) Arthropoda (4) Coelenterata

(11) a - Produce large numbers of pollens

b - Colorful

c - Has a branched stigma

d - Has sticky pollens

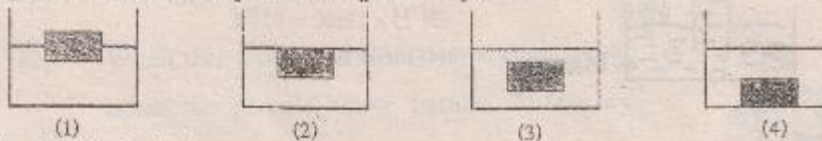
Of the above given characteristics, Which is / are the most suitable for a wind pollinated flower?

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

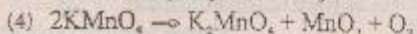
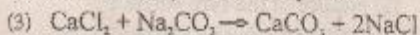
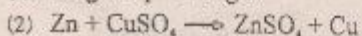
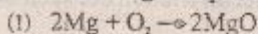
(12) The fertilization of a human ovum takes place in,

- (1) The ovary (2) Fallopian tube (3) The uterus (4) in the vagina

(13) The following diagrams show how a same object presents in different solutions. Select the diagram with the lowest upthrust acting on the object.



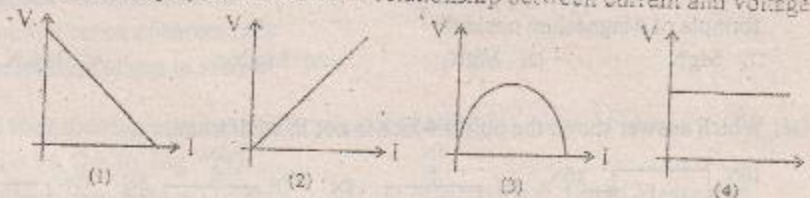
(14) What is a single displacement reaction?



(15) What is the gas that can be collected using both downward displacement of water and upward displacement of air?

- (1) Carbon dioxide (2) Oxygen
(3) Hydrogen (4) Hydrogen & Oxygen

(16) What is the correct graph that shows the relationship between current and voltage?



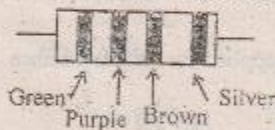
(17) What is the number of water moles present in 90g of water? (H = 1, O = 16)

- (1) 2 mol (2) 5 mol (3) 8 mol (4) 6.022 mol

(18) How much work is done by a machine with a power of 60W in 20 seconds?

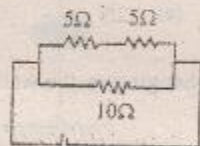
- (1) 3 J (2) 20 J (3) 60 J (4) 1200 J

(19) The resistor with a colour code of a resistor is given in the following diagram. Calculate the resistance of it? (Brown - 1, Purple - 7, Green - 5, Silver - 10%)



- (1) 57 Ω (2) 520 Ω
(3) 750 Ω (4) 5750 Ω

(20) What is the total resistance of this circuit?



- (1) 5 Ω (2) 10 Ω
(3) 20 Ω (4) 55 Ω

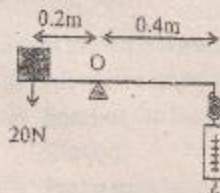
(21) Which of the following metal can be extracted using physical methods?

- (1) Iron (2) Copper (3) Sodium (4) Gold

(22) Select the combination of fruits /seeds with a similar method of dispersal?

- (1) Mango, Domba, Kottamba, Gammalu
(2) Dipterocarpus, Thotila, Wara, Cotton
(3) Nagadarana, Woodapple, Kudalu, Rubber
(4) Domba, Diyakaduru, Coconut, Apple

(23) A light weighted stick is balanced at the point O as in the following diagram. What would be the reading of the Newton balance?



- (1) 2N (2) 10N
(3) 20N (4) 40N

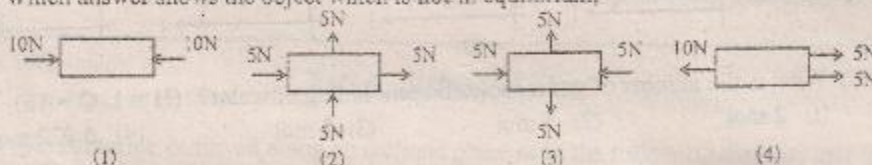
(24) Select the correct answer that shows a gradual change in the properties of elements from left to right of the periodic table.

- (1) Increase the metallic properties of elements
- (2) Increase the first ionization energy
- (3) Decrease the non metallic properties of elements
- (4) Decrease the electronegativity of elements

(25) If the chemical formula of Magnesium chloride is $MgCl_2$, what is the chemical formula of Magnesium nitride?

- (1) MgN
- (2) Mg_3N_2
- (3) Mg_2N_3
- (4) Mg_3N

(26) Which answer shows the object which is not in equilibrium.



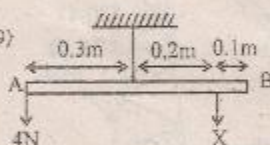
(27) What are the standard international units of work, energy & efficiency respectively?

- (1) J, J, W
- (2) Js, J, W
- (3) W, J, J
- (4) W, W, J

(28) Which cell organelle involves in Protein synthesis.

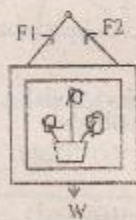
- (1) Chloroplast
- (2) Golgi bodies
- (3) Mitochondria
- (4) Ribosome

(29) What is the force that should be applied for "X", to balance the light weighted stick, AB?



- (1) 2N
- (2) 4N
- (3) 6N
- (4) 12N

(30)



This is a diagram of a framed photograph hanging on the wall. Which type of equilibrium does it have?

- (1) Equilibrium under three coplanar non parallel forces.
- (2) Equilibrium under three coplanar parallel forces.
- (3) Equilibrium under three non - coplanar parallel forces.
- (4) Equilibrium under three non - coplanar forces acting in opposite directions

(31) Which metal has a lower density than water and can be sliced using a knife as it is soft.

- (1) Magnesium
- (2) Sodium
- (3) Aluminium
- (4) Mercury

(32) What are the three components of a nucleotide?

- (1) Nitrogenous base, Phosphate group, Pentose sugar group
- (2) Nitrogenous base, Phosphate group, Hexose sugar group
- (3) Nucleic acid, Phosphate group, Pentose sugar group
- (4) Nucleic acid, Phosphate group, Nitrogenous base,

(33) Friction of a moving object is called,

- (1) Static frictional force (2) Limiting frictional force
(3) Dynamic frictional force (4) Maximum frictional force

(34) Meiosis occurs during,

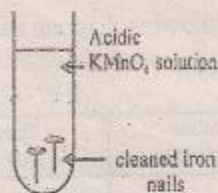
- (1) the generation of new cells in recovering a wound
(2) the production of blood cells
(3) the multiplication of cancer cells
(4) the production of ova in ovaries

(35) Which of the following pairs has similar number of atoms?

(H = 1, N = 14, O = 16, Mg = 24)

- (1) 2g of Hydrogen & 8g of Oxygen (2) 7g of Nitrogen & 12g of Magnesium
(3) 7g of Nitrogen & 7g of Hydrogen (4) 28g of Nitrogen & 16g of Oxygen

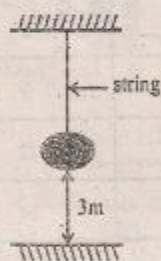
(36)



The purple colour of acidic KMnO_4 disappeared quickly, when,

- (1) Heated the test tube
(2) Cooled the test tube
(3) Added more KMnO_4 to the solution
(4) Decreased the number of iron nails

(37)



An iron ball with 500g of mass is hunged from 3m height from the earth as in the diagram. What is the potential energy of it? ($g = 10\text{ms}^{-2}$)

- (1) $500 \times 10 \times 3 \text{ J}$ (2) $\frac{500}{1000} \times 10 \times 3 \text{ J}$
(3) $\frac{1}{2} \times 500 \times 10^3 \text{ J}$ (4) $500 \times 10 \text{ J}$

(38) Which Scientist introduced the binomial nomenclature?

- (1) Gregory Mendal (2) Carolus Linnaeus
(3) Charls Darwin (4) Robert Whitekar

(39) The ability to respond to internal and external stimuli is named as,

- (1) Co-ordination (2) Development
(3) Homeostasis (4) Irritability

(40) Select the correct statement regarding the micro-organasisms.

- (1) All micro-organasisms belong to the domain Archaea
(2) Some of the bacterial species are important for the process of atmospheric Nitrogen fixation.

Channa Asela