



Minuwangoda Education Zone

Second Term Test - 2023

Grade 11

Science I

Time : 1 hours

* Select the most suitable answer.

(1) The type of carbohydrate stored in the body is,

- (i) Albumin (ii) Cellulose (iii) Glycogen (iv) Sucrose

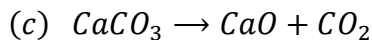
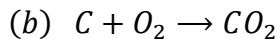
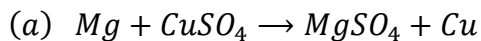
(2) The water soluble vitamins are,

- (i) A and B (ii) C and D (iii) A and D (iv) B and C

(3) A weak acid found in the laboratory is,

- (i) Nitric acid (iii) Hydrochloric acid
(ii) Acetic acid (iv) Sulphuric acid

(4) a, b, c are three equations for chemical reactions.



A chemical combination and a single displacement reactions are,

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

(5) What is the work done when lifting up an object of 5.5kg in 10m.

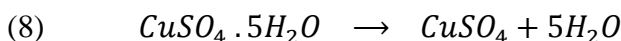
- (i) 55J (ii) 550J (iii) 0.55J (iv) 0.18J

(6) It is not an animal belongs to the phylum echinodermata.

- (i) Starfish (iii) Sea anemone
(ii) Sea cucumber (iv) Sea urchin

(7) It is not a characteristic of human hormones,

- (i) A very low concentration is sufficient.
(ii) Stimulates only the target organs.
(iii) Chemicals that are transport through the blood.
(iv) Produced at one site and act on another site.



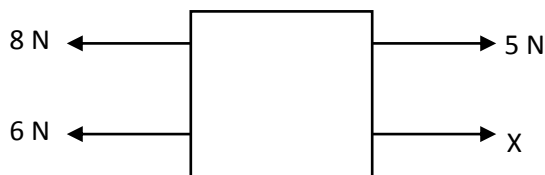
(aqueous copper sulphate) (anhydrous copper sulphate)

What is the mass of aqueous copper sulphate required to obtain 16g of anhydrous copper sulphate?

($Cu = 64, S = 32, O = 16, H = 1$)

- (i) 30g (ii) 25g (iii) 16g (iv) 20g

(9)



If the object is at rest, the force applied to 'X' is,

- (i) 7N (ii) 9N (iii) 14N (iv) 2N

(10) Which factor does not affect pressure in a liquid?

- (i) depth of liquid
(ii) density of liquid
(iii) volume of liquid
(iv) gravitational acceleration

(11) It is an adaptation of passion fruit plant to avoid self-pollination.

- (i) Having unisexual flowers (iii) Dichogamy
(ii) Hercogamy (iv) Self-sterility

(12) A cubic box weighing 800N is on a table. The area of the bottom of the box is $0.4m^2$ The pressure exerted on the table by the box is,

- (i) 2000 Pa (ii) 320 Pa (iii) 800 Pa (iv) 0.05 Pa

(13) Inhalation of carbon monoxide (CO) gas can be fatal to a person. The main reason is,

- (i) Inactivation of enzymes.
(ii) disturbance of oxygen transportation in red blood
(iii) Destruction of body tissue fluid.
(iv) Increasing the blood pressure.

(14) ${}^{14}_7X$ Which is the correct statement regarding the atom 'X'

- (i) The mass number is 7
(ii) Metal oxides are basic
(iii) Electronegativity is less than Na
(iv) Forms X^{3-} ions.

• Answer the questions 15 and 16 considering the following elements.

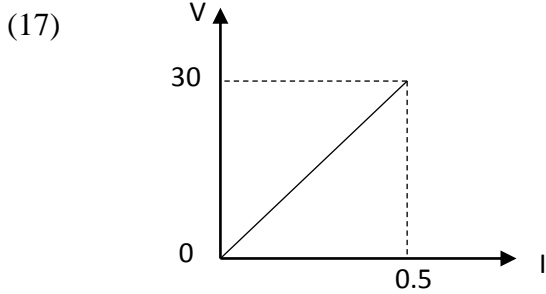
Na	,	Mg	,	Cu	,	N	,	B	,	S
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(15) What is the element that reacts with hot water but doesn't react with cold water?

- (i) Na (ii) Mg (iii) Cu (iv) B

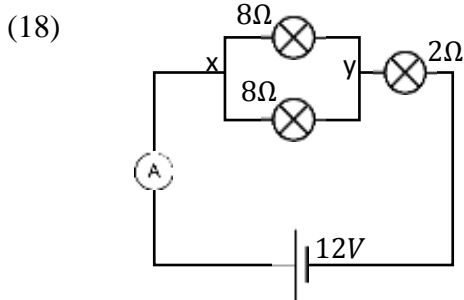
(16) The elements used in the manufacture of skin cream and fire works respectively,

- (i) Mg, B (ii) Na, Cu (iii) B, S (iv) Cu, Mg



According to the graph the resistance of the system is,

- (i) 30Ω (ii) 0.5Ω (iii) 60Ω (iv) 100Ω



The reading of the ammeter is,

- (i) $\frac{1}{2}A$ (ii) $2A$ (iii) $6A$ (iv) $12A$

(19) It is not possible when a copper wire is connected between 'X' and 'Y' in the above circuit.

- (i) Decreasing the reading of ammeter.
(ii) Increasing the brightness of 2Ω bulb.
(iii) A bulb with 8Ω resistance will not light up.
(iv) Over heats the 2Ω bulb.

(20) It is the method should be followed to detach a nut on the wheel of a bus,

- (i) The applied force should be reduced.
(ii) Uses a spanner with short handle.
(iii) Decreases the moment.
(iv) Applies a force at the end of the metal tube which is connected to the handle of the spanner.

(21) Statement - Identical twins are almost identical in features and shape.

Reason - Identical twins are born by dividing the zygote into two.

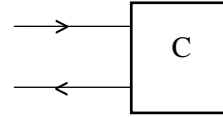
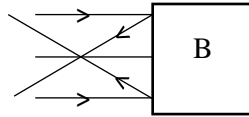
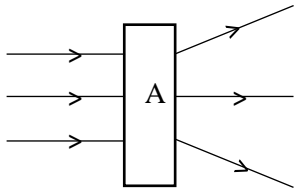
- (i) The statement and reason match.
(ii) The reason match and the statement doesn't match.
(iii) The reason doesn't match the statement match.
(iv) The reason and statement don't match.

(22) What method of separation of components can be used to identify, if food is contaminated with toxic substances?

- (i) Fractional distillation (iii) Steam distillation
(ii) Thrust (iv) Chromatography

(23) A, B, C are the optical devices. They are respectively,

- (i) convex lens, plane mirror, concave lens
(ii) prism, concave mirror, convex lens
(iii) concave lens, concave mirror, prism
(iv) concave lens, convex mirror, plane mirror



(24) It is not a benefit of cerebrospinal fluid.

- (i) Support bouncy to brain and spinal cord.
- (ii) Protect against microbial infections.

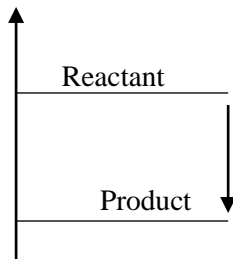
- (iii) Supplies a momentum to the brain.
- (iv) Absorption of shocks and jerks.

(25) The voltage supplied to flow 0.2A current through a car headlight for 10 minutes is 12V. The energy generated by the headlamp is,

- (i) 1440 J
- (ii) 24 J

- (iii) 2880 J
- (iv) None of this

(26)



According to the graph,

- (i) It is an exothermic chemical reaction.
- (ii) It is an endothermic chemical reaction

- (iii) It is a chemical decomposition reaction
- (iv) It is a chemical combination reaction

(27) Select the materials with the P^H value is '7',

- (i) $NaCl$, $CuSO_4$, lime water
- (ii) $NaOH$, distilled water, $NaCl$

- (iii) $C_6H_{12}O_6$, $NaCl$, distilled water
- (iv) $NaHCO_3$, $NaCl$, H_2O

(28) It is a false statement regarding the CO_2 molecule,

- (i) Has 2 unibonds.
- (ii) There are 2 long pairs of electrons around 'O'
- (iii) Has 2 double bonds.
- (iv) Absence of lone pairs of electrons around 'C'

(29) The non-nucleated living cells of plants and animals are,

- (i) Sieve tube elements and red blood cells.
- (ii) Epithelial cells and white blood cells.
- (iii) Companion cells and red blood cells.
- (iv) Companion cells and white blood cells.

(30) The processes that occur in the formation of urine in the nephron are,

- (a) Ultra filtration
- (b) Selective reabsorption
- (c) Secretion

Select the true statements,

- (i) Only a
- (ii) Only b
- (iii) a, c Only
- (iv) a, b, c all

(31) The molecule with triple bonds is,

- (i) H_2
- (ii) N_2
- (iii) O_2
- (iv) CO_2

- (32) Following are some of the symptoms that can be seen in a patient is,
 (a) Caught
 (b) Difficulty breathing
 (c) Voice not coming out properly
- The disease of the above patient is,
 (i) Common cold (iii) Asthma
 (ii) Bronchitis (iv) Tuberculosis
- (33) Find the number of '*Na*' atoms in 46g of *Na* (*Na* = 23)
 (i) $\frac{6.022 \times 10^{23}}{2}$
 (ii) 6.022×10^{23}
 (iii) $6.022 \times 10^{23} \times 46$
 (iv) $6.022 \times 10^{23} \times 2$
- (34) It is not important for increasing the pitch of a sound, generated by vibration of a membrane,
 (i) Heating
 (ii) Reducing the membrane vibrating area,
 (iii) Increasing the tension.
 (iv) Increasing the thickness of membrane.
- (35) The organ, which acts as an endocrine gland and secreting digestive enzymes is,
 (i) Liver (iii) Thyroid
 (ii) Pancreas (iv) Kidney
- (36) The object moves, when a force of 100N acts on an object of mass 20kg. Find the acceleration.
 (i) $(100 + 20)ms^{-2}$ (iii) $\frac{100}{20} ms^{-2}$
 (ii) $(100 - 20) ms^{-2}$ (iv) $\frac{20}{100} ms^{-2}$
- (37) Find the elements present in before and after the 'N' in the periodic table.
 (i) *O* and *C* (ii) *C* and *O* (iii) *Si* and *S* (iv) *S* and *Si*
- (38) The radius of curvature (*2f*) of a concave mirror is 24 cm. where is the image formed when the distance of object is 12cm.
 (i) On the focus
 (ii) On the centre of the curvature
 (iii) Between the focus and centre of curvature.
 (iv) At infinity
- (39) Find the vertebrates and cold blooded animals,
 (i) Jungle fowl, Hawk, Deer (iii) Shark, Whale, Bat
 (ii) Toad, Parrot, Crow (iv) Crane, Snake, Elephant
- (40) What should not be done by an environmental friendly person.
 (i) Burning the plastic cup, which collected water.
 (ii) Using organic fertilizer instead of chemical fertilizers.
 (iii) Recycling the domestic waste matter.
 (iv) Using biological controlling methods for controlling pests.