CLASS: X   **MAX MARKS: 20**

DATE 21-05-2018   **DURATION: 45 MINS**

1. Define the unit of electric current. (1)

2. What is meant by saying that the potential difference between two points is 1 V.? (1)

3. Identify x and y in the following reaction: (1)

$$KBr\ (aq) + AgNO_3\ (aq) \longrightarrow KNO_3\ (x) + AgBr\ (y)$$

4. Identify the following changes as exothermic or endothermic: (1)

    (a)Decomposition of ferrous sulphate .

    (b) Dissolution of quick lime.

5. Name the following: - (1)

    a) The reactions which are the most common chemical means to break-down molecules.

    b) The structure which regulates the removal of waste material through anus.

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1. Name the following:-

    a) The reactions which are the most common chemical means to break-down molecules.

    b) The rhythmic contraction movements that occur in the gut to push the food forward. (1)

2. Define the electric potential difference and give its unit. (1)

3. Calculate the number of electrons constituting one coulomb of charge. (1)

4. Identify x and y in the following reaction:

$$AlCl_3\ (aq) + 3NH_4OH\ (aq) \longrightarrow Al\ (OH)_3\ (x) + 3NH_4Cl\ (y)$$ (1)

5. Identify the following changes as exothermic or endothermic:

    (a) Decomposition of Zinc carbonate. (1)

    (b) Combustion of methane.

6. State Ohm's law. On what factors does the resistance of a conductor depend? (2)

7. What happens when a piece of: (2)

(a) Zinc metal is added to copper sulphate solution?

(b) Aluminum metal is added to dilute hydrochloric acid?

8. (a) State two functions of the secretion released by the Liver. (2)

(b) How is the small intestine designed to absorb digested food?

9. Distinguish between resistance and resistivity. Calculate the resistance of 1 km long wire of copper (3) of radius 1mm. resistivity of copper is 1.72×10^{-8} Ωm.

10. Write the balanced equations for the following reactions and identify the type of reactions. (3)

(a) Aluminum sulphate treated with Barium chloride.

(b) Heating of lead nitrate.

11. a) Mention three main events that occur during photosynthesis. (3)

b) Draw any three labelled diagrams in sequence to show nutrition in Amoeba.

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6. a) State two functions of the acidic secretion released by the gastric glands in stomach. (2)

b) What is the main difference in the small intestine of a herbivore and a carnivore?

7. What happens when a piece of: (a) Silver metal is added to copper sulphate solution? (2)

(b) Zinc metal is added to dilute hydrochloric acid?

8. (i) How is a voltmeter connected in the circuit.(ii) When a 12 V battery is connected across an (2) unknown resistor, there is a current of 2.5 mA in the circuit. Find the value of the resistance of that resistor.

9. a) Mention three main events that occur during photosynthesis. (2)
b) Draw any three labelled diagrams in sequence to show nutrition in Amoeba.

10. (i) Write an expression for the resistivity of a substance. (3)

(ii) State the S.I unit of resistivity

(iii) Name two factors on which the resistivity of substance depends and two factors on which it does not depend.

11. Write the balanced equations for the following reactions and identify the type of reactions. (3)

(a) Lead nitrate treated with potassium iodide.

(b) Preparation of ammonia from nitrogen and hydrogen.

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