Time: 2Hrs. TEST SCIENCE CLASS X MM 60

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[LIFE PROCESSES]

Q1. What criteria do we use to decide whether something is alive? (1)

Q2. What is the role of the acid HCl in our stomach? (1)

Q3. Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds? (2)

Q4. How is the amount of urine produced regulated? (2)

Q5 What is the role of Saliva in the digestion of food? (2)

Q6. Write down balanced chemical equation of photosynthesis showing reactants, products & necessary conditions. (2)

Q7. In which form and where extra glucose is stored in plants and human beings? (2)

Q8 What is lymph? Write any two functions of it. (2)

Q9. What are the methods used by plants to get rid of excretory products? (2)

Q10. Write any 3 differences between breathing and respiration. (3)

Q11 Compare the structure & function of artery, vein & Capillary. (3)

Q12 What are the differences in transportation in xylem and phloem with respect to i) Direction of transportation (ii) energy Consumption iii) Substances transported. (3)

Q13. Describe double circulation in human beings, Why is it necessary? (4)

Q14. Describe Composition of blood and function of each Component. (4)

Q15. What are differences between aerobic and anaerobic respiration? Name some organisms that use the anaerobic mode of respiration. (4)

Q16. Show breakdown of glucose by different pathways with the help of a flow chart. (4)

Q17 Write down end products of digestion of Carbohydrates, proteins and fats mentioning enzymes acting on them. (4)

Q18. Describe structure and functioning of nephrons. (5)

Q19. Compare the functioning & structure of nephrons & alveoli. (5)

Q20. Draw labelled & neat fine diagram of any one (i) Stoma (ii) alveolus (iii) Urinary system (human) (iv) Longitudinal section of human heart. (5)

TEST SCIENCE CLASS X

TIME: 1hr. MM 30

Chapter-2 [ACIDS, BASES AND SALTS]

Q1. Write the formulae of the following salts and write the Acid and base from which they are prepared. (i) Sodium Sulphate (ii) Sodium Nitrate (iii) Calcium chloride (iv) Zinc Phosphate Do any one belong to the same family? (4)

Q2. What is common in acid and base? Which scale measures Hydrogen ion Concentration? (2) What is its range?

Q3. If five solutions have pH 3, 7, 10, 1, 14 and named A, B, C, D, E respectively. Which solution is most acidic and most basic? (1)

Q4. What are indicators? Write its type with two examples of each. (3)

Q5. Complete the following equations & give one example of each: (6)

i) Metal + Acid ⟶
ii) Non-metallic oxide + Base ⟶
iii) Acid + Base ⟶
iv) Carbonate + Acid ⟶
v) Metal + Alkali ⟶
vi) Metallic oxide + Acid ⟶

Q6. Write the preparation of Baking Soda. Write its two uses. (2)

Q7. What is chlor-alkali process? Write different products produced along with location. (2)

Q8. Write two uses of (a) Gypsum (b) Bleaching powder (2)

Q9. What is water of crystallisation? Write water of crystallisation of ferrous sulphate and Washing Soda. (2)

Q10. What is importance of pH in daily life. Take any two examples and explain. (2)

Q11. What is strong & weak Acid? How the nature of Salt is decided by the strength of Acid & Base? (3)

Q12 Do Acids have OH^- ions? And Base H^+? (1)

Time 1 Hr. TEST SCIENCE CLASS X

Chapter 1 [CHEMICAL REACTIONS and EQUATIONS]

Q1. What is a balanced chemical equation? Why should chemical equations be balanced? (2)

Q2. Translate the following statements into chemical equations and balance them and identify their type giving reasons:

i) Nitrogen combines with Hydrogen to produce ammonia

ii) Hydrogen Sulphide burns in air to form Water and Sulphur dioxide.

iii) Potassium metal reacts with water to form potassium Hydroxide and Hydrogen.

iv) Potassium Bromide reacts with Barium Iodide to form potassium Iodide and Barium Bromide

v) Zinc carbonate on heating decomposes into Zinc oxide and Carbon dioxide. (5)

Q3. What does one mean by exothermic and endothermic reaction. Give one example of each. (3)

Q4. Why are decomposition reactions called opposite of combination reactions? Write equation for each. (3)

Q5. Explain the following in terms of gain or loss of oxygen with two examples for each. (a) oxidation (b) reduction (3)

Q6. A shiny brown coloured element 'X' on heating in air becomes black in colour. Name the element 'X' & black coloured compound formed. (1)

Q7. In following reaction (a) What is oxidised? (b) Which is reducing agent? (1)

$$PbO + C \longrightarrow Pb + CO$$

Q8. Write short note on any one and two methods of preventing/reducing it.

a) Corrosion (b) rancidity (2)

TEST SCIENCE CLASS IX

Time 1 hr. MM 35.

Chapter 2 [IS MATTER AROUND US PURE]

Q1. What is meant by a pure substance ? [1]

Q2. List any two points of differences between homogeneous and heterogeneous mixtures. [2]

Q3. What type of mixtures are separated by the technique of Crystallisation ? Why is it better than evaporation? [2]

Q4. What is saturated solution ? How it can be made unsaturated without adding water? [2]

Q5. What is sedimentation and leading in reference to purification of water? [2]

Q6. Name the technique to separate
i) butter from Curd (ii) Salt from sea water (iii) Camphor from salt (iv) Kerosene and petrol [difference in boiling points is more than 25 K]. [2]

Q7. Write the steps you would use for making tea using the words "solution, solvent, solute, dissolve, soluble, insoluble, filterate and residue." [3]

Q8. Classify into physical and chemical changes : [3]
i) Burning of paper (ii) making Salad from Raw fruits
iii) dissolving salt in water (iv) Electrolysis of water and resulting into production of oxygen & hydrogen
v) growth of a tree (vi) Cutting of a tree.

Q9. Write difference between solution, sol and suspension with reference to a) Size of particles (b) Stability (c) Residue (d) Tyndall effect. [4]

Q10 Classify into Element, Compound and mixture : Silver, air, iron, Copper Sulphate, Carbon dioxide, Hydrochloric acid, starch solution, Copper Sulphate Solution. [4]

Q11 Write steps to separate mixture in correct sequence + Its Constituents are Sand, Iron filings, Sulphur, NaCl, NH_4Cl. [5]

Q12 If 2g of a substance 'x' is dissolved in 100g of water at 293 K. Find its conc. by (i) mass to mass % (ii) mass to volume %. Which method shows higher concentration and Why? [5]

TEST SCIENCE CLASS IX

Time: 1 Hr. M.M. 30

Chapter 1 [MATTER IN OUR SURROUNDINGS]

Q1. What is matter? Which of these are matter? air, Smell, Water, Biscuit. (2)

Q2. You can cut your hand through air or water but not through a wall. Explain Why? (2)

Q3. Why wooden table is called a solid but not water and air? (2)

Q4. Compare three states of matter with respect to fluidity and volume. (3)

Q5 What are methods by which state of matter can be changed? Give examples also. (3)

Q6. Define (a) Latent heat of fusion (b) Boiling point (c) Melting point (d) Sublimation. (4)

Q7. Convert

(a) 170 K to Celcius (b) 53°C to K. (2)

Q8. Write effect of each factor affecting rate of Evaporation. (2)

Q9. How does evaporation cause cooling effect? On this principle explain the following observations. (5)

a) Why should we wear cotton & light coloured clothes during summer season?

(b) Why water droplets appear on the outer surface of the container having ice or ice-cold water?

Q10 i) What is the physical state of water at 79°C & 0°C? (1)

ii) Write two examples of sublimable substances. (1)

iii) Which produces more severe burns boiling water or steam? Why? (3)