

(CLASS – IX)
Science Group

Time: 30 minutes

Max. Marks: 17

General Instructions:

Section 'A': It consists of 17 Multiple choice questions (MCQs) and all of them are to be answered.

Section 'B': It comprises of 15 short answer questions of which 10 questions are to be answered.

Section 'C': It comprises of 4 Descriptive answer questions of which 2 questions are to be answered.

SECTION-A (COMPULSORY) MULTIPLE CHOICE QUESTIONS (MCQS) (17 Marks)

Note:

- (i) Attempt all the questions.
- (ii) Do not copy down the Questions. Write only the answer against the proper number of questions and its part.
- (iii) Each question carry **ONE** mark.

Q.1. Choose the correct answer from the given options:

- (i) **Father of Modern Chemistry is:**
☆ Robert Boyle ☆ Cavendish ☆ Jabir Ibne- Haiyan ☆ Al –Beruni
- (ii) **The mass of one mole of substance expressed in gram is called:**
☆ Empirical formula ☆ Molecular formula ☆ Molecular mass ☆ Molar mass
- (iii) **The electronegativity of hydrogen is :**
☆ 2.1 ☆ 3.0 ☆ 2.5 ☆ 1.0
- (iv) **Its compounds are used in our tooth pastes to protect and control tooth decay.**
☆ Bromide ☆ Chloride ☆ Fluoride ☆ Iodide
- (v) **Law of Reciprocal proportion was presented by:**
☆ H Landolt ☆ John Dalton ☆ Louis proust ☆ Ritche
- (vi) **Mole fraction is denoted by:**
☆ X ☆ M ☆ N ☆ Z
- (vii) **CoCa-Cola contains this acid:**
☆ Carbonic acid ☆ Acetic acid ☆ Boric acid ☆ Formic acid
- (viii) **Basic unit of Electric current is:**
☆ Joule ☆ Ampere ☆ Coulomb ☆ Kg / Coulomb
- (ix) **The process in which solid is directly changes to gas is called:**
☆ Evaporation ☆ Sublimation ☆ Fusion(melting) ☆ Vaporization
- (x) **The PH value of Human blood is:**
☆ 7.35 – 7.45 ☆ 7.8 ☆ 7.2 ☆ 7.0
- (xi) **The formula of Sodium Hydrogen carbonate is:**
☆ Na_2CO_3 ☆ $NaHCO_3$ ☆ $Na_2CO_3 \cdot 10H_2O$ ☆ $Na_2CO_3 \cdot 6H_2O$
- (xii) **The heat evolved during the formation of 1 mole of water from H_2 and O_2 is:**
☆ 118 KJ/mole ☆ 186 KJ/mole ☆ 286 KJ/mole ☆ 300 KJ/mole
- (xiii) **Water accounts for about this percent of the weight in human body:**
☆ 50% ☆ 60% ☆ 70% ☆ 80%
- (xiv) **Chemical formula of Iron pyrite is:**
☆ Fe_2O_3 ☆ Fe_3O_4 ☆ FeS_2 ☆ $CuFeS_2$
- (xv) **Bucky ball is an allotrope of:**
☆ Carbon ☆ Sulphur ☆ Phosphorus ☆ Oxygen
- (xvi) **Natural gas mainly consist of:**
☆ Methane ☆ Ethane ☆ Propane ☆ Butane
- (xvii) **Urea which is an organic compound was first synthesized by:**
☆ Wohler ☆ Bohr ☆ Rutherford ☆ Arrhenius

S.S.C (ANNUAL) EXAMINATION - 2018 & ONWARDS
MODEL QUESTION PAPER
CHEMISTRY (Theory)
(SCIENCE GROUPS)
CLASS IX

20

Time: 2 hours 30 minutes

Max. Marks: 68

SECTION 'B' SHORT QUESTION ANSWER

(40 Marks)

Note: Answer any 10 questions from this section:

- Q.2. Write one contribution of any four Muslim Scientists in the field of Chemistry.
- Q.3. Write any four types of chemical reactions and give one example of each reaction.
- Q.4. Write any four properties of cathode rays.
- Q.5. What is the mass of 3 mole of each?
(i) Carbon dioxide (CO_2) (ii) Water (H_2O)
- Q.6. Name the solute and solvent in the following:
(i) Syrup (ii) Cheese (iii) Foam (iv) Smoke
- Q.7. Balance the following equations:
(i) $CH_4 + O_2 \rightarrow CO_2 + H_2O$ (ii) $KClO_3 \rightarrow KCl + O_2$ (iii) $NaHCO_3 \rightarrow Na_2CO_3 + CO_2 + H_2O$
(iv) $NH_3 + O_2 \rightarrow NO + H_2O$
- Q.8. Reproduce the following chemical reactions in the form of balanced chemical equations:
(i) Ethene reacts with hydrogen gas to form ethane
(ii) Carbon monoxide reacts with oxygen to form carbon dioxide
- Q.9. Calculate the molarity of a solution containing 4 gm of NaOH in 500 cm^3 (ml) of solution.
- Q.10. Write two causes of food spoilage and describe two methods of its preservation.
- Q.11. Write one use of each of the following:
(i) Carbon black (ii) Charcoal (iii) Coke (iv) Methane
- Q.12. What happens when electric current is passed through acidulated water? Give reactions at two electrodes and mention the product at cathode and anode.
- Q.13. Chlorine is naturally found into two stable isotopes $^{35}_{17}Cl$ & $^{37}_{17}Cl$ in the proportion of 75% and 25% respectively. Calculate the atomic mass of Chlorine.
- Q.14. Write down the percentage of the main components of pig iron.
(i) Silicon (ii) Sulphur (iii) Carbon (iv) Iron
- Q.15. Give reasons of the following:
(i) Why fish, poultry, and dairy products are spoiled.
(ii) Why lime water turns milky when carbon dioxide gas is passed through it.
- Q.16. Draw the diagrams of the following:
(i) Tetrahedral structure of diamond (ii) Plastic sulphur
(iii) Rhombic Sulphur (iv) Monoclinic sulphur

SECTION 'C' DESCRIPTIVE – ANSWER QUESTIONS

(28 MARKS)

Note: Answer any 02 questions from this section:

- Q.17. (a) What is meant by Co-ordinate Covalent bond? Explain the formation of hydronium ion (H_3O^+) from water by the help of a dot & cross model.
(b) What are oxides? How are they classified? Describe normal oxides in detail.
- Q.18. (a) Describe electrolysis of pure Alumina with electrodes reaction and labelled diagram to obtain Aluminium metal.
(b) What is meant by solubility? Explain the factors which effected on the rate of solubility.
- Q.19. (a) Give Salient features of group VIIIA (Inert or noble gases). Also explain the discovery of noble gases.
(b) State and explain the Faraday's laws of electrolysis with labelled diagram, where needed.
- Q.20. (a) What is meant by Isomerism. How chain isomerism is formed? Explain it with the help of an example.
(b) What do you understand by detergents? Give the composition of detergents and its function.

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