

Sig. of Supdt.....

KT-IX-1901
Chemistry (9th)
Fresh

Roll No.....

Fic. No.....

Time allowed: 3 Hrs

Code: B

Chemistry (9th)
Fresh

Fic. No.....

Marks: 65

Note: There are three sections of the paper, A, B & C. Carefully read the instructions for each section and attempt accordingly. Attempt all questions of section - (A) and return it to the superintendent within the given time.

Time: 15 Mins

Section "A"

Marks: 12

Q.1 Write the correct option i.e. A, B, C or D in the empty box provided opposite to each part. Cutting, erasing and over writing will not be awarded.

- i. Modern periodic table is based on C
A. Mass number B. Nucleon's C. Atomic number D. Neutrons
- ii. Shielding effect is due to D
A. Neutrons B. Protons C. Nucleons D. Electrons
- iii. There is covalent bond in nitrogen molecule (N₂). C
A. Single B. Double C. Triple D. Additive
- iv. A cation with a charge is called D
A. An electron B. A molecule C. A metal D. An ion
- v. Which one of the following is a crystalline solid? A
 A. Sodium chloride B. Charcoal C. Candle wax D. Rubber
- vi. Alloy is an example solution. A
 A. Solid in solid B. Solid in liquid C. Solid in gas D. Liquid in solid
- vii. The branch of chemistry which deals with interconversion of electrical energy and mechanical energy is called C
A. Physical chemistry B. Analytical chemistry C. Electrochemistry D. Industrial chemistry
- viii. The oxide of calcium, CaO is B
A. Acidic B. Basic C. Amphoteric D. Neutral
- ix. A substance consists of two or more substances chemically combined in fixed ratio by mass is called B
A. Element B. Compound C. Mixture D. Solution
- x. One Avogadro's number contains particles. A
 A. 6.023×10^{23} B. 6.023×10^{19} C. 6.023×10^{27} D. 6.023×10^{31}
- xi. The maximum number of electrons in a particular orbit is given by the formula B
A. $2n$ B. $2n^2$ C. $2n^2 - 2$ D. $2n^2 + 2$
- xii. L-Shell has sub shell(s) B
A. S B. S, P C. S, p, d D. S, p, d, f

Time: 2 hours 45 minutes.

Section "B"

Marks: 32

Q.2 Answer any EIGHT parts. All parts carry equal marks.

- i. Differentiate between gram atomic mass and gram molecular mass with example.
- ii. How many moles are there in 8.9×10^{23} hydrogen atom?
- iii. Write down any four points of Rutherford atomic model.
- iv. Draw electronic configuration of (a) Ne^{10} , (b) Cl^{17}
- v. What is shielding effect? Give its trends in periodic table.
- vi. Make a general sketch of the periodic table without showing s, p, d and f- block elements.
- vii. Explain coordinate covalent bond with at least one example.
- viii. Diamond is crystalline allotropic form of carbon, explain.
- ix. Why we stir paints before use it?
- x. What is electroplating? Give two purposes of electroplating.
- xi. Write at least four uses of sodium.

Section "C"

Marks: 21

Note: Attempt any THREE of the following questions. All questions carry equal marks.

- Q.3 a. What is chemistry? Discuss the contribution of Jabber-Ibn-Hayan in the field of chemistry.
b. Why Dalton atomic theory is considered as a base for modern atomic concepts?
- Q.4 a. Discuss ionization potential. Give its trends in periodic table.
b. Explain hydrogen bonding support your answer with suitable example
- Q.5 a. Define vapour pressure. What are the factors affecting the vapour pressure?
b. Calculate the molarity of 5.00 cm^3 of solution containing 7.50 grams of CH_3OH .
- Q.6 a. Discuss the preparation of sodium hydroxide (NaOH) from brine along with its important reactions.
b. Give the reaction of magnesium (Mg) with (i) HCl (ii) Cl_2 (iii) O_2