

SSC 1st ANNUAL EXAMINATION 2024
Rubrics CHEMISTRY SSC- I (B)

FINAL 16-04-2024

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
2 (i)	First Differentiation between compound and mixture.	Writing first correct Differentiation (1.5)	Writing partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
	Second Differentiation between compound and mixture.	Writing Second correct Differentiation (1.5)	Writing partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
OR								
2 (i)	Conversion of 850 mmHg into atm	Writing correct conversion of 850 mmHg into atm(1)	Partially Correct conversion (0.5)	Wrong answer (0)				
	Conversion of 560 torr to cmHg	Writing correct conversion of 560 torr to cmHg(1)	Partially Correct conversion (0.5)	Wrong answer (0)				
	Conversion of 1.25atm to Pa	Writing correct conversion of of 1.25atm to Pa(1)	Partially Correct conversion (0.5)	Wrong answer (0)				
2 (ii)	Identification of branch of chemistry that deals with a.) use of wet processes in cement production	Writing correct identification of use of wet process in cement production (1)	Writing partially correct response (0.5)	Wrong answer (0)				
	Identification of branch of chemistry that deals with b). white vapours appear when NH ₄ Cl is heated	Writing correct identification of white vapours appear when NH ₄ Cl is heated (1)	Writing partially correct response (0.5)	Wrong answer (0)				
	Identification of	Writing correct	Writing partially	Wrong answer (0)				

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	branch of chemistry that deals with C.) oxygen is produced during photosynthesis	identification of oxygen is produced during photosynthesis (1)	correct response (0.5)					
OR								
2 (ii)	Explanation of a. Saturated solution.	Writing correct explanation of saturated solution. (1)	Writing Partially Correct explanation (0.5)	Wrong answer (0)				
	Explanation of b. Unsaturated solution.	Writing correct explanation of unsaturated solution. (1)	Writing Partially Correct explanation (0.5)	Wrong answer (0)				
	Explanation of c. Supersaturated solution.	Writing correct explanation of supersaturated solution. (1)	Writing Partially Correct explanation (0.5)	Wrong answer (0)				
2 (iii)	Electronic configuration of $_{17}\text{Cl}^{35}$	Writing correct Electronic configuration of $_{17}\text{Cl}^{35}$ (1)	Writing Partially Correct Response (0.5)	Wrong answer (0)				
	Electronic configuration of $_{11}\text{Na}^{23}$	Writing correct Electronic configuration of $_{11}\text{Na}^{23}$ (1)	Writing Partially Correct Response (0.5)	Wrong answer (0)				
	Electronic configuration of $_{10}\text{Ne}^{20}$	Writing correct Electronic configuration of $_{10}\text{Ne}^{20}$ (1)	Writing Partially Correct Response (0.5)	Wrong answer (0)				

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OR								
2 (iii)	Writing block, group and period of a. $1s^2$	Writing three correct (block, group and period) of electronic configuration of $1s^2$ (1.5)	Writing any two correct (block or group or period) of electronic configuration of $1s^2$ (1)	Writing any one correct (block or group or period) of electronic configuration of $1s^2$ (0.5)	Wrong answer (0)			
	Writing block, group and period of b. $1s^2, 2s^2, 2p^4$	Writing three correct (block, group and period) of electronic configuration of $1s^2, 2s^2, 2p^4$ (1.5)	Writing any two correct (block or group or period) of electronic configuration of $1s^2, 2s^2, 2p^4$ (1)	Writing any one correct (block or group or period) of electronic configuration of $1s^2, 2s^2, 2p^4$ (0.5)	Wrong answer (0)			
2 (iv)	Drawing Bohr's Model of Carbon atom indicating location of electrons, protons and neutrons	Correctly drawing along with three(electrons, protons and neutrons)of C (1.5)	Correctly drawing along with two(electrons or protons or neutrons) of C (1)	Correctly drawing along with one(electrons or protons or neutrons) of C (0.5)	Wrong answer (0)			
	Drawing Bohr's Model of Magnesium atom indicating location of electrons, protons and neutrons	Correctly drawing along with three(electrons, protons, neutrons)of Mg (1.5)	Correctly drawing along with two(electrons or protons or neutrons) of Mg (1)	Correctly drawing along with one(electrons or protons or neutrons) of Mg (0.5)	Wrong answer (0)			
OR								
2 (iv)	Explanation of Octet rule with example	Writing correct explanation with	Partially Correct response (1)	Any relevant information (0.5)	Wrong answer			

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		example (1.5)			(0)			
	Explanation of duplet rule with example	Writing correct explanation with example (1.5)	Partially Correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
2 (v)	Explanation of periodic law	Writing Correct explanation of periodic law (1)	Partially correct response (0.5)	Wrong answer (0)				
	Explanation of Group	Writing Correct explanation of group (1)	Partially correct response (0.5)	Wrong answer (0)				
	Explanation of period of modern periodic table	Writing Correct explanation of period of modern periodic table (1)	Partially correct response (0.5)	Wrong answer (0)				
OR								
2 (v)	What does 95% v/v means, which concentration unit is it.	Writing correct description (3)	Partially Correct response (2)	Any relevant information (1)	Wrong answer (0)			
2 (vi)	First differentiation between diffusion and effusion of gases with example	Writing first correct differentiation with example (1.5)	Partially Correct response (1)	Any relevant information (0.5)	Wrong answer (0)			

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	Second differentiation between effusion and diffusion of gases with example	Writing second correct differentiation with example (1.5)	Partially Correct response (1)	Any relevant information (0.5)	Wrong answer (0)			

OR

2 (vi)	Empirical formula of Nicotine ($C_{10}H_{14}N_2$)	Writing correct empirical formula of Nicotine ($C_{10}H_{14}N_2$) (1.5)	Partially Correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
	Empirical formula of Caffeine ($C_8H_{10}N_4O_2$)	Writing correct empirical formula of Caffeine ($C_8H_{10}N_4O_2$) (1.5)	Partially Correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
2 (vii)	Boiling point	Correct explanation of boiling point (1)	Partially correct response (0.5)	Wrong answer (0)				
	Water be boiled at $70^\circ C$	Correct response of boiling point (1)	Wrong answer (0)					
	Explanation of water boiled at $70^\circ C$	Correct explanation of boiling point at $70^\circ C$ (1)	Partially correct response (0.5)	Wrong answer (0)				

OR

2 (vii)	Moles of H_2 are present in 10g of H_2	Writing correct Calculation (3)	Writing partially correct calculation (2)	Any relevant information (1)	Wrong answer (0)			
2 (viii)	Drawing of electron cross and dot structure of a. H_2S	Drawing correctly electron cross and dot structure of H_2S (1.5)	Drawing partially correct electron cross and dot structure of H_2S (1)	Any relevant information (0.5)	Wrong answer (0)			

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
	Drawing of electron cross and dot structure of b. C ₂ H ₄	Drawing correctly electron cross and dot structure of C ₂ H ₄ (1.5)	Drawing partially correct electron cross and dot structure of C ₂ H ₄ (1)	Any relevant information (0.5)	Wrong answer (0)			

OR

2 (viii)	Allotropes	Writing correct description of allotropes (1)	Writing partially correct description of allotropes (0.5)	Wrong answer (0)				
	Explanation of allotropic form of phosphorous	Writing correct description of two allotropes of phosphorous (2)	Writing correct description of one allotrope of phosphorous (1)	Any relevant information (0.5)	Wrong answer (0)			
2 (ix)	Flask contain 0.1M KOH solution .What mass of KOH is present per dm ³	Writing correct Calculation (3)	Writing partially correct calculation (2)	Any relevant information (1)	Wrong answer (0)			

OR

2 (ix)	Description of the nature of the electrochemical processes	Writing correct description of electrochemical processes (3)	Writing partially correct description of electrochemical processes (2)	Any relevant information (1)	Wrong answer (0)			
2 (x)	Explanation of dissolving Glucose in water.	Writing correct explanation (1.5)	Writing partially correct explanation (1)	Any relevant information (0.5)	Wrong answer (0)			

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	Explanation of Gasoline does not dissolve in water	Writing correct explanation (1.5)	Writing partially correct explanation (1)	Any relevant information (0.5)	Wrong answer (0)			

OR

2 (x)	Oxidation state	Writing the correct description (1)	Writing partially correct description (0.5)	Wrong answer (0)				
	Common oxidation state of group II elements	Writing correct oxidation state of group II elements (1)	Partially correct response(0.5)	Wrong answer (0)				
	Common oxidation state of group VII elements	Writing correct oxidation state of group VII elements (1)	Partially correct response(0.5)	Wrong answer (0)				
2 (xi)	Identification of the oxidizing and reducing agent in $Mg+2HCl \rightarrow MgCl_2+H_2$	Identification of the correct oxidizing and reducing agent (1.5)	Identification of the correct oxidizing agent or reducing agent (1)	Any relevant information (0.5)	Wrong answer (0)			
	Identification of the oxidizing and reducing agent in $2KCl+F_2 \rightarrow 2KF+Cl_2$	Identification of the correct oxidizing and reducing agent (1.5)	Identification of the correct oxidizing agent or reducing agent (1)	Any relevant information (0.5)	Wrong answer (0)			

OR

2 (xi)	Reason of Sodium is cut easily with knife.	Writing the correct reason (3)	Writing partially correct reason (2)	Any relevant information (1)	Wrong answer (0)			
Q.3.	Description of the formation of covalent bond in N_2	Writing the correct description for the formation of covalent bond in N_2 (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)			

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	Description of the formation of covalent bond in NH ₃	Writing the correct description for the formation of covalent bond in NH ₃ (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)			
	Description of the formation of covalent bond in O ₂	Writing the correct description for the formation covalent bond in O ₂ (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)			

OR

Q.3.	An electrolytic cell	Writing the correct description (1)	Writing partially correct description (0.5)	Wrong answer (0)				
	Enlisting 1 st use of electrolytic cell	Writing any 1 st correct use of electrolytic cell (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting 2 nd use of electrolytic cell	Writing any 2 nd correct use of electrolytic cell (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting 3 rd use of electrolytic cell	Writing any 3 rd correct use of electrolytic cell (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting 4 th use of electrolytic cell	Writing any 4 th correct use of electrolytic cell (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting 5 th use of electrolytic cell	Writing any 5 th correct use of electrolytic cell (1)	Partially correct response (0.5)	Wrong answer (0)				

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Q.4.	Enlisting any 1 st importance and use of isotopes	Writing any 1 st correct importance and use of isotopes (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting any 2 nd importance and use of isotopes	Writing any 2 nd correct importance and use of isotopes (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting any 3 rd importance and use of isotopes	Writing any 3 rd correct importance and use of isotopes (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting any 4 th importance and use of isotopes	Writing any 4 th correct importance and use of isotopes (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting any 5 th importance and use of isotopes	Writing any 5 th correct importance and use of isotopes (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlisting any 6 th importance and use of isotopes	Writing any 6 th correct importance and use of isotopes (1)	Partially correct response (0.5)	Wrong answer (0)				
OR								
Q.4.	Mentioning the group number and period number of a. $1s^2, 2s^2$	Correctly mentioned group number and period number (1)	Partially correctly mentioned group number and period number (0.5)	Wrong answer (0)				

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
	Mentioning the group number and period number of b. $1s^2, 2s^1$	Correctly mentioned group number and period number (1)	Partially correctly mentioned group number and period number (0.5)	Wrong answer (0)				
	Mentioning the group number and period number of c. $1s^2, 2s^2, 2p^6$	Correctly mentioned group number and period number (1)	Partially correctly mentioned group number and period number (0.5)	Wrong answer (0)				
	Mentioning the group number and period number of d. $1s^2, 2s^2, 2p^6, 3s^1$	Correctly mentioned group number and period number (1)	Partially correctly mentioned group number and period number (0.5)	Wrong answer (0)				
	Mentioning the group number and period number of e. $1s^2, 2s^2, 2p^6, 3s^2, 3p^3$	Correctly mentioned group number and period number (1)	Partially correctly mentioned group number and period number (0.5)	Wrong answer (0)				
	Mentioning the group number and period number of F. $1s^2, 2s^2, 2p^6, 3s^2, 3p^5$	Correctly mentioned group number and period number (1)	Partially correctly mentioned group number and period number (0.5)	Wrong answer (0)				
Q.5.	Important applications of Gold	Writing any two correct important applications of Gold (2)	Writing any one correct important application of Gold (1)	Any relevant information (0.5)	Wrong answer (0)			
	Important applications of Silver	Writing any two correct important applications of Silver (2)	Writing any one correct important application of Silver (1)	Any relevant information (0.5)	Wrong answer (0)			

OR

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Q.5.	Explanation of the formation of ionic bond in Na and F	Writing correct explanation for the formation of ionic bond in Na and F (2)	Writing partially correct explanation for the formation of ionic bond in Na and F (1.5)	Any relevant information (1)	Wrong answer (0)			
	Explanation of the formation of ionic bond in Mg and Cl	Writing correct explanation for the formation of ionic bond in Mg and Cl (2)	Writing partially correct explanation for the formation of ionic bond in Mg and Cl (1.5)	Any relevant information (1)	Wrong answer (0)			
Q.6.	Explanation of the concentration unit of molarity with example	Writing correct explanation of concentration unit of molarity with example (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
	Explanation of the concentration unit of percentage with example	Writing correct explanation of concentration unit of percentage with example (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			

OR

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
Q.6.	Explanation of the formation of sodium metal by the electrolysis of fused NaCl	Writing correct explanation with chemical equations for the formation of Na (4)	Writing correct explanation or equations for the formation of Na (3)	Partially correct response (2)	Any relevant information (1)	Wrong answer (0)		

Note: All the markers must know the solutions of all the question items of the question paper before starting marking.

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Rubrics CHEMISTRYSSC- I (D)

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2 (i)	Differentiation of element.	Writing correct differentiation of element(1.5)	Partially Correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
	Differentiation of compound.	Writing correct differentiation of compound(1.5)	Partially Correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
OR								
2 (i)	Differentiation of Diffusion of gases	Writing correct differentiation of Diffusion.(1.5)	Partially Correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
	Differentiation of Effusion of gases	Writing correct differentiation of Effusion.(1.5)	Partially Correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
2 (ii)	Describe the nature of electrochemical processes.	Writing correct description of electrochemical process. (3)	Partially Correct response (2)	Any relevant information(1)	Wrong answer (0)			
OR								
2 (ii)	moles are in block of ice that weighs 75g	Writing correct calculations of moles of ice (3)	Partially Correct response (2)	Any relevant information(1)	Wrong answer (0)			
2 (iii)	Writing the electronic configuration of a) ${}_6\text{C}^{14}$	Writing correct electronic configuration of ${}_6\text{C}^{14}$ (1)	Partially Correct response(0.5)	Wrong answer (0)				
	Writing the electronic configuration of b) ${}_{18}\text{Ar}^{40}$	Writing correct electronic configuration of ${}_{18}\text{Ar}^{40}$ (1)	Partially Correct response(0.5)	Wrong answer (0)				

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
	Writing the electronic configuration of c) ${}_{20}\text{Ca}^{40}$	Writing correct electronic configuration of ${}_{20}\text{Ca}^{40}$ (1)	Partially Correct response (0.5)	Wrong answer (0)				
OR								
2 (iii)	Block, Group and period of a) 1S^2	Writing correct Block, Group and period of 1S^2 (1)	Partially Correct response(0.5)	Wrong answer (0)				
	Block, Group and period of b) $1\text{s}^2, 2\text{s}^2, 2\text{p}^6, 3\text{s}^1$	Writing correct Block, Group and period of $1\text{s}^2, 2\text{s}^2, 2\text{p}^6, 3\text{s}^1$ (2)	Writing correct Block, Group or period (1)	Writing any one correct Block, Group or period (0.5)	Wrong answer (0)			
2 (iv)	Drawing of Bohr's Model of ${}_{17}\text{Cl}^{35}$ indicating location of electrons, protons and neutrons	Correctly drawing the Bohr's model indicating electrons, protons and neutrons of ${}_{17}\text{Cl}^{35}$ (1.5)	Correctly drawing the Bohr's model indicating electrons, protons or neutrons of ${}_{17}\text{Cl}^{35}$ (1)	Partially Correct response(0.5)	Wrong answer (0)			
	Drawing of Bohr's Model of ${}_{7}\text{N}^{14}$ indicating location of electrons, protons and neutrons	Correctly drawing the Bohr's model indicating electrons, protons and neutrons of ${}_{7}\text{N}^{14}$ (1.5)	Correctly drawing the Bohr's model indicating electrons, protons or neutrons of ${}_{7}\text{N}^{14}$ (1)	Partially Correct response(0.5)	Wrong answer (0)			

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OR								
2 (iv)	0.85% m/v solution of NaCl is used in intravenous solution. Means of 0.85% m/v	Writing correct description of 0.85% m/v (1)	Partially Correct response(0.5)	Wrong answer (0)				
	0.85% m/v solution of NaCl is used in intravenous solution. Concentration unit it is	Writing correct concentration unit (2)	Partially Correct response(1)	Any relevant information(0.5)	Wrong answer (0)			
2 (v)	Explanation of a. periodic law	Writing Correct explanation of periodic law (1)	Partially correct response (0.5)	Wrong answer (0)				
	Explanation of b. period	Writing Correct explanation of period (1)	Partially correct response (0.5)	Wrong answer (0)				
	Explanation of c. Group of modern periodic table	Writing Correct explanation of group of modern periodic table (1)	Partially correct response (0.5)	Wrong answer (0)				
OR								
2 (v)	Drawing of electron dot and cross structure of a.) COCl ₂	Drawing correct electron dot and cross structure of COCl ₂ (1.5)	Partially Correct response(1)	Any relevant information(0.5)	Wrong answer (0)			

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
	Drawing of electron dot and cross structure of b. C ₂ H ₄	Drawing correct electron dot and cross structure of C ₂ H ₄ (1.5)	Partially Correct response(1)	Any relevant information(0.5)	Wrong answer (0)			
2 (vi)	Atmospheric pressure	Writing correct description of atmospheric pressure (1)	Partially correct response (0.5)	Wrong answer (0)				
	Four units of atmospheric pressure	Writing Four correct units of atmospheric pressure (2)	Writing any three correct units of atmospheric pressure (1.5)	Writing any two correct units of atmospheric pressure (1)	Writing any one correct unit of atmospheric pressure (0.5)	Wrong answer (0)		
OR								
2 (vi)	Differentiation of Empirical formula with example	Writing correct description of empirical formula with example (1.5)	Partially correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
	Differentiation of Molecular formula with example	Writing correct description of Molecular formula with example (1.5)	Partially correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
2 (vii)	Boiling point	Writing correct description of boiling	Partially correct	Wrong answer (0)				

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		point (1)	response (0.5)					
	Boiling of water at 120° C	Writing correct response of water can be Boiled at 120° C (1)	Wrong answer (0)					
	Reason of how water can be Boiled at 120° C.	Writing correct reason of water can be Boiled at 120° C (1)	Partially correct response (0.5)	Wrong answer (0)				

OR

2 (vii)	Explanation of Octet Rule with example	Writing correct explanation of Octet Rule with example (1.5)	Partially correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
	Explanation of Duplet Rule with example	Writing correct explanation of Duplet Rule with example (1.5)	Partially correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
2 (viii)	What is meant by Allotropes	Writing correct Description of Allotropes (1)	Partially correct response (0.5)	Wrong answer (0)				
	Explanation of Any 1 st allotrope of sulphur	Writing correct explanation of Any 1 st allotrope of sulphur (1)	Partially correct response (0.5)	Wrong answer (0)				
	Explanation of Any 2 nd allotrope of sulphur	Writing correct explanation of Any 2 nd allotrope of sulphur (1)	Partially correct response (0.5)	Wrong answer (0)				

OR

2 (viii)	Explanation of a. Solution	Writing correct explanation of Solution(1)	Partially correct response (0.5)	Wrong answer (0)				
	Explanation of b. Solute	Writing correct explanation of Solute (1)	Partially correct response (0.5)	Wrong answer (0)				

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	Explanation of c. Solvent	Writing correct explanation of Solvent (1)	Partially correct response (0.5)	Wrong answer (0)				
2 (ix)	Calculation of the molarity of 0.32 mg per dm ³ of Benzene (C ₆ H ₆).	Writing correct calculations (3)	Writing partially correct calculations (2)	Any relevant information(1)	Wrong answer (0)			
OR								
2 (ix)	Identification of the branch of a. Use of radiotherapy to treat cancer	Writing correct identification (1)	Partially correct response (0.5)	Wrong answer (0)				
	Identification of branch of b. Hydrocarbon occur naturally and can be synthesized in laboratory	Writing correct identification (1)	Partially correct response (0.5)	Wrong answer (0)				
	Identification of branch of (c) pure metals are extracted from their ores.	Writing correct identification (1)	Partially correct response (0.5)	Wrong answer (0)				
2 (x)	Followings pair of liquids are miscible or not Explain with reason a. H ₂ O and C ₆ H ₆	Writing correct identification with reason (1)	Partially correct response (0.5)	Wrong answer (0)				
	Followings pair of liquids are miscible or	Writing correct identification with reason	Partially correct response	Wrong answer (0)				

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	not Explain with reason B. C ₆ H ₆ and CCl ₄	(1)	(0.5)					
	Followings pair of liquids are miscible or not Explain with reason C. H ₂ O and Oil	Writing correct identification with reason (1)	Partially correct response (0.5)	Wrong answer (0)				

OR

2 (x)	Oxidation number	Writing correct description (1)	Partially correct response (0.5)	Wrong answer (0)				
	Oxidation number of group IA in binary compounds	Writing correct Oxidation number of group IA (1)	Partially correct response (0.5)	Wrong answer (0)				
	Oxidation number of group VI-A in binary compounds	Writing correct Oxidation number of group VI-A (1)	Partially correct response (0.5)	Wrong answer (0)				
2 (xi)	Identification of oxidizing and Reducing agent in following reaction A) $2KI + Cl_2 \rightarrow 2KCl + I_2$	Writing correct identification $2KI + Cl_2 \rightarrow 2KCl + I_2$ (1.5)	Partially correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
	Identification of oxidizing and Reducing agent in following reaction B) $H_2S + Cl_2 \rightarrow 2HCl + S$	Writing correct identification $H_2S + Cl_2 \rightarrow 2HCl + S$ (1.5)	Partially correct response (1)	Any relevant information(0.5)	Wrong answer (0)			

OR

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
2 (xi)	Noble metals	Writing correct description (1)	Partially correct response (0.5)	Wrong answer (0)				
	Noble metals can be Oxidized	Writing correct description (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
Q.3.	Description of Single covalent bond with suitable example	Writing correct description of single covalent bond with example (2)	Writing correct description or example of single covalent bond (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)		
	Description of Double covalent bond with suitable example	Writing correct description of double covalent bond with example (2)	Writing correct description or example of double covalent bond (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)		
	Description of Triple covalent bond with suitable example	Writing correct description of triple covalent bond with example (2)	Writing correct description or example of triple covalent bond (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)		
OR								
Q.3.	Explanation of the construction of Daniel cell	Writing correct description of Daniel cell (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
	Explanation of the working of Daniel cell with the help of	Writing correct description of Daniel cell with the help of chemical	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
	chemical reaction	reaction (2)						
	Drawing of labeled diagram of Daniel cell	Drawing correct labelled diagram (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
Q.4.	Description of the Rutherford's Atomic model with conclusions	Writing correct description of Rutherford's Atomic model with conclusions (4)	Writing correct description of Rutherford's Atomic model without conclusions (3)	Writing correct description of Rutherford's Atomic model or conclusions (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)	
	Description of the defects of Rutherford's Atomic model	Writing correct description of defects (02)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
OR								
Q.4.	Mentioning of the group number and period number of (a) $1s^2$	Writing correct group number and period number of $1s^2$ (1)	Partially correct response (0.5)	Wrong answer (0)				
	Mentioning of the group number and period number of (b) $1s^2, 2s^1$	Writing correct group number and period number of $1s^2, 2s^1$ (1)	Partially correct response (0.5)	Wrong answer (0)				
	Mentioning of the group number and period number of (c.) $1s^2, 2s^2, 2p^2$	Writing correct group number and period number of $1s^2, 2s^2, 2p^2$ (1)	Partially correct response (0.5)	Wrong answer (0)				
	Mentioning of the group number and period number of	Writing correct group number and period number of $1s^2, 2s^2, 2p^5$	Partially correct response (0.5)	Wrong answer (0)				

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
	(d) $1s^2, 2s^2, 2p^5$	(1)						
	Mentioning of the group number and period number of (e) $1s^2, 2s^2, 2p^6, 3s^2, 3p^1$	Writing correct group number and period number of $1s^2, 2s^2, 2p^6, 3s^2, 3p^1$ (1)	Partially correct response (0.5)	Wrong answer (0)				
	Mentioning of the group number and period number of (f) $1s^2, 2s^2, 2p^6, 3s^2, 3p^6$	Writing correct group number of and period number of $1s^2, 2s^2, 2p^6, 3s^2, 3p^6$ (1)	Partially correct response (0.5)	Wrong answer (0)				
Q.5.	1 st Application of Platinum	Writing correct any 1 st Application of Platinum (1)	Partially correct response (0.5)	Wrong answer (0)				
	2 nd Application of Platinum	Writing correct any 2 nd Application of Platinum (1)	Partially correct response (0.5)	Wrong answer (0)				
	3 rd Application of Platinum	Writing correct any 3 rd Application of Platinum (1)	Partially correct response (0.5)	Wrong answer (0)				
	4 th Application of Platinum	Writing correct any 4 th Application of Platinum (1)	Partially correct response (0.5)	Wrong answer (0)				

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
OR								
Q.5.	Drawing of the ionic bond between pairs of atoms a) Ca and O	Drawing correct ionic bond between Ca and O (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
Q.6.	Drawing of the ionic bond between pairs of atoms b) Na and S	Drawing correct ionic bond between Na and S (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
	1st way to express percentage of Solution	Writing any 1st correct way to express percentage of Solution (1)	Partially correct response (0.5)	Wrong answer (0)				
	2nd way to express percentage of Solution	Writing any 2nd correct way to express percentage of Solution (1)	Partially correct response (0.5)	Wrong answer (0)				
	3rd way to express percentage of Solution	Writing any 3rd correct way to express percentage of Solution (1)	Partially correct response (0.5)	Wrong answer (0)				
	4th way to express percentage of Solution	Writing any 4th correct way to express percentage of Solution (1)	Partially correct response (0.5)	Wrong answer (0)				
OR								

Q.# / Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
Q.6.	Explanation by using chemical equations formation of gas produced as by product during electrolysis of fused NaCl.	Writing correct explanation of process (1)	Partially correct response (0.5)	Wrong answer (0)				
	Explanation by using chemical equation at anode	Writing correct reaction at anode (1)	Partially correct response (0.5)	Wrong answer (0)				
	Explain by using chemical equation at cathode	Writing correct reaction at cathode (1)	Partially correct response (0.5)	Wrong answer (0)				
	Identification of the gas produced by electrolysis of fused NaCl	Writing correct identification of a gas (1)	Partially correct response (0.5)	Wrong answer (0)				

Note: All the markers must know the solutions of all the question items of the question paper before starting marking.