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

FINAL 2-4-2024

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #	oriteria.	Level 2 (mana)	Level Zamana,	2000.0 (11101.10)	Level I (ividino)	(Marks)	(Marks)	(Marks)
	Name of $C_2H_4Br_2$	Writing correct Name of $C_2H_4Br_2$ (1)	Wrong answer (0)					
2 (i)	Name of C_4H_8	Writing correct Name of C_4H_8 (1)	Wrong answer (0)					
	Write the name of C_3H_8	Writing correct Name of C_3H_8 (1)	Wrong answer (0)		_			
OR								
2 (:)	slake lime	Writing correct description (1)	Partially Correct description (0.5)	Wrong answer (0)				
2 (i)	Production of slake lime	Writing correct description/Equation (2)	Partially Correct description (1)	Any relevant information (0.5)	Wrong answer (0)			
	Name of first raw material in sodium carbonate	Writing first correct Name (1)	Writing partially correct name (0.5)	Wrong answer (0)				
2 (ii)	Name of second raw material in sodium carbonate	Writing Second correct Name (1)	Writing partially correct name (0.5)	Wrong answer (0)				
	Name of third raw material in sodium carbonate	Writing Third correct Name (1)	Writing partially correct name (0.5)	Wrong answer (0)				
OR								
2 (ii)	Preparation of methane from methyl chloride.	Writing correct description (1)	Partially Correct description (0.5)	Wrong answer (0)				
	Reaction	Writing correct Equation (2)	Partially Correct Equation (1)	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)
2 (111)	Balance chemical equation of Acid base reaction	Writing correct Equation (1.5)	Partially Correct Equation (1)	Wrong answer (0)				
2 (iii)	Balance chemical equation of Reaction of acid with metal oxide	Writing correct Equation (1.5)	Partially Correct Equation (1)	Wrong answer (0)				
OR								
2 (iii)	Description of Monosaccharides	Writing correct description (1)	Partially Correct description (0.5)	Wrong answer (0)				
	Description of Proteins	Writing correct description (1)	Partially Correct description (0.5)	Wrong answer (0)				
	Description of Vitamins / Lipids	Writing correct description (1)	Partially Correct description (0.5)	Wrong answer (0)				
	Explanation of the strange behavior of water with temperature	Writing correct description of strange behavior of water with temperature (2)	Partially Correct description of strange behavior of water with temperature (1.5)	Any relevant information (1)	Any relevant information (0.5)	Wrong answer (0)		
2 (iv)	Explanation of importance of the strange behavior of water	Writing correct importance (1)	Partially Correct importance (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								
	Derivation of alkyl radical from a. Ethane	Deriving correct formula from Ethane (1)	Partially Correct formula (0.5)	Wrong answer (0)				
2 (iv)	Derivation of alkyl radical from b. Pentane	Deriving correct formula from Pentane (1)	Partially Correct formula (0.5)	Wrong answer (0)				
	Derivation of alkyl radical from c. Butane	Deriving correct formula from butane (1)	Partially Correct formula (0.5)	Wrong answer (0)				
2 (v)	Determination of the reactants and the products in the expression $K_c = \frac{[H_2O][CO]}{[H_2][CO_2]}.$	Writing Correct reactants and products(1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
	Determination of the reactants and the products in the expression $K_c = \frac{[CH_3OH]}{[2H_2][CO]}.$	Writing Correct reactants and products (1.5)	Partially correct response (1)	Any relevant information(0.5)	Wrong answer (0)			

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #		1				(Marks)	(Marks)	(Marks)
OR								
2 (v)	Identification of any two functional groups found in amino acid	Writing any two correct Functional Groups (1)	Writing any one correct Functional Group (0.5)	Wrong answer (0)				
	Structure of amino acid	Writing correct formula (2)	Partially Correct formula (1)	Wrong answer (0)				
	Hard water hamper the cleaning action of soap (1st Reason)	Writing any first correct reason(1)	Partially Correct first reason (0.5)	Wrong answer (0)				
2 (vi)	Hard water hamper the cleaning action of soap (2 nd Reason)	Writing any second correct reason(1)	Partially Correct second reason (0.5)	Wrong answer (0)				
	Hard water hamper the cleaning action of soap (3 rd Reason)	Writing any third correct reason(1)	Partially Correct third reason (0.5)	Wrong answer (0)				
OR								
2 (vi)	Explanation of the roasting process	Writing correct explanation (1.5)	Writing partially correct explanation (1)	Any relevant information (0.5)	Wrong answer (0)			
∠ (vi)	Examples	Writing two correct examples (1.5)	Writing one correct example (1)	Wrong answer (0)				
	Arrhenius acids and bases.	Correct description of Arrhenius acid and base (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
2 (vii)	Explanation of Arrhenius acid and base with examples.	Writing one correct examples of acid and one of base with explanation (1.5)	Writing one correct example of acid or base with explanation (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)
	Water born diseases.	Writing correct description (1)	Writing partially correct description (0.5)	Wrong answer (0)				
2 (vii)	Write 1 st symptom of diseases	Writing First correct symptom (1)	Writing partially correct symptom (0.5)	Wrong answer (0)				
	Write 2 nd symptom of diseases	Writing Second correct symptom (1)	Writing partially correct symptom (0.5)	Wrong answer (0)				
2 (viii)	Differentiation between open chain and closed chain	Writing correct Differentiation (1.5)	Writing partially correct Differentiation (1)	Wrong answer (0)				
Z (VIII)	Open chain and closed chain with structural formula	Writing two correct structural formulae (2)	Writing one correct structural formula (1)	Wrong answer (0)				
2 (;)	Write 1 st method of preparation of ethane with chemical equation	Writing two correct methods (1.5)	Writing one correct method (1)	Writing Any relevant information (0.5)	Wrong answer (0)			
2 (ix)	Write 2 nd method of preparation of ethane with chemical equation	Writing two correct equations (1.5)	Writing one correct equation (1)	Wrong answer (0)				
OR						•		•
2 (ix)	Sucrose is disaccaharide	Writing correct description/equation of Sucrose (1)	Writing partially correct description/equation of Sucrose(0.5)	Wrong answer (0)				

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #						(Marks)	(Marks)	(Marks)
	lactose is disaccaharide	Writing correct description/equation of Lactose (1)	Writing partially correct description/equation of Lactose(0.5)	Wrong answer (0)				
	Maltose is disaccaharide	Writing correct description/equation of maltose (1)	Writing partially correct description/equation of Maltose(0.5)	Wrong answer (0)				
2 (v)	Write 1st reaction for formation of ozone layer	Writing 1 st correct reaction (1.5)	Writing partial correct 1 st reaction (1)	Wrong answer (0)				
2 (x)	Write 2 nd reaction for formation of ozone layer	Writing 2 nd correct reaction (1.5)	Writing partial correct 2 nd reaction (1)	Wrong answer (0)				

	Meaning of self- ionization of water.	Writing the correct description (1.5)	Writing partially correct description (1)	Wrong answer (0)				
2 (x)	Write chemical equation for self-ionization of water	Writing correct balanced equations (1.5)	Partially correct response(1)	Wrong answer (0)				
2 (xi)	Global warming	Writing the correct description (1)	Writing partially correct description (0.5)	Wrong answer (0)				
	Cases of global warming	Writing the correct Cause (2)	Writing partially correct cause (1)	Any relevant information (0.5)	Wrong answer (0)			
OR	OR							

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #						(Marks)	(Marks)	(Marks)
2 (xi)	Reason of industrial waste for polluting the water	Writing the correct description (3)	Writing partially correct description (2)	Any relevant information (1)	Wrong answer (0)			
	Description of equilibrium constant	Writing the correct description (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)			
Q.3.	Derivation of equilibrium constant Kc of expression	Writing the correct four steps of derivation (4)	Writing the three correct steps (3)	Writing the two correct steps (2)	Writing the one correct step (1)	Wrong answer (0)		

	Description of Bronsted Lowery concept of acid base	Writing the correct description (3)	Writing partially correct description (2)	Any relevant information (1)	Wrong answer (0)		
Q.3.	Explanation of Bronsted Lowery concept with example	Writing the correct description of reaction (3)	Writing partially correct description of reaction (2)	Any relevant information (1)	Wrong answer (0)		
Q.4.	Soft water	Writing the correct description of soft water (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		
	Explanation of first method to remove permanent hardness of water	Writing first correct method to remove the hardness (2)	Writing partially correct first method to remove the hardness (1)	Any relevant information (0.5)	Wrong answer (0)		

C	l.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Р	art#						(Marks)	(Marks)	(Marks)
		Explanation of Second method to remove permanent hardness of water	Writing Second correct method to remove the hardness (2)	Writing partially correct second method to remove the hardness (1)	Any relevant information (0.5)	Wrong answer (0)			
									•

	RNA.	Writing the correct description (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		
Q.4. Q.5.	Description of function of RNA	Correct Description of function of RNA (2)	Partially correct Description of function of RNA (1)	Any relevant information (0.5)	Wrong answer (0)		
	Description of structure of RNA	Correct Description of structure of RNA (2)	Partially Correct Description of structure of RNA (1)	Any relevant information (0.5)	Wrong answer (0)		
	1 st Differentiation between stratosphere and troposphere	Writing One correct Differentiation of stratosphere (2)	Writing partially correct Differentiation (1)	Any relevant information (0.5)	Wrong answer (0)		
	2 nd Differentiation between stratosphere and troposphere	Writing One correct Differentiation of troposphere (2)	Writing partially correct Differentiation (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)
Q.5.	Flow sheet diagram of solvay process	Correctly drawing flowsheet in 8 blocks (4)	Correctly drawing flowsheet in 6 blocks (3)	Correctly drawing flowsheet in 4 blocks (2)	Correctly drawing flowsheet in 2 blocks (1)	Any relevant informatio n (0.5)	Wrong answer (0)	(Widi KS)
	Name and uses of any 1 st fraction obtained by fraction distillation of petroleum	Writing correct name and use of 1 st fraction (1)	Partially correct response (0.5)	Wrong answer (0)				
Q.6.	Name and uses of any 2 nd fraction obtained by fraction distillation of petroleum	Writing correct name and use of 2 nd fraction (1)	Partially correct response (0.5)	Wrong answer (0)				
Q.o.	Name and uses of any 3 rd fraction obtained by fraction distillation of petroleum	Writing correct name and use of 3 rd fraction (1)	Partially correct response (0.5)	Wrong answer (0)				
	Name and uses of any 4 th fraction obtained by fraction distillation of petroleum	Writing correct name and use of 4 th fraction (1)	Partially correct response (0.5)	Wrong answer (0)				

Q.6.		Writing correct chemical	Partially correct response	Wrong answer (0)		
	Chemical equations	equation with alkene (2)	(1)			
Q.0.	of KMnO ₄ with alkene					

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #						(Marks)	(Marks)	(Marks)
	Chemical equations of KMnO ₄ with alkynes	Writing correct chemical equation with alkyne (2)	Partially correct response (1)	Wrong answer (0)				

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

SSC Annual Examination- 2024

Rubrics CHEMISTRYSSC- II (D)

Final 2-4-2024

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #						(Marks)	(Marks)	(Marks)
	First demerit of acid	Writing First correct	Writing partially correct	Wrong answer (0)				
	rain	demerit. (1)	demerit (0.5)	Wrong answer (o)				
Q 2 (i)	Second demerit of	Writing Second correct	Writing partially correct	Wrong answer (0)				
Q 2 (I)	acid rain	demerit. (1)	demerit (0.5)	Wrong answer (o)				
	Third demerit of acid	Writing third correct	Writing partially correct	Wrong answer (0)				
	rain	demerit. (1)	demerit (0.5)	Wholig allower (0)				
OR		,				1	_	1
	1 st reason of using	Writing First correct	Writing partially correct	Wrong answer (0)				
	lighter alkanes as fuel	reason. (1)	first reason (0.5)	Wrong answer (o)				
Q 2 (i)	2 nd reason of using	Writing Second correct	Writing partially correct	Wrong answer (0)				
α 2 (1)	lighter alkanes as fuel	reason. (1)	second reason (0.5)	Wrong answer (o)				
	3 rd reason of using	Writing Third correct	Writing partially correct	Wrong answer (0)				
	lighter alkanes as fuel	reason. (1)	third reason (0.5)					
	Sources and harmful	Writing source and	Partially Correct response (0.5)					
	effects of any first	harmful effect of first		Wrong Answer (0)				
	major air pollutant.	major air pollutant (1)	(5.5)					
()	Sources and harmful	Writing source and	Partially Correct response					
Q 2 (ii)	effects of any second	harmful effect of second	(0.5)	Wrong Answer (0)				
	major air pollutant.	major air pollutant (1)	,					
	Sources and harmful	Writing source and	Partially Correct response					
	effects of any third	harmful effect of third	(0.5)	Wrong Answer (0)				
OD	major air pollutant.	major air pollutant (1)						
OR	F		1 1 1 1					1
	First importance of	Writing First correct	Writing partially correct	Wrong Answer (0)				
	water.	importance. (1)	first importance (0.5)	J , ,				
Q 2 (ii)	Second importance	Writing Second correct	Writing partially correct	Wrong Answer (0)				
Q 2 (11)	of water.	importance. (1)	second importance (0.5)					
	Third importance of	Writing Third correct	Writing partially correct	Mrang Anguar (0)				
	water.	importance. (1)	third importance (0.5)	Wrong Answer (0)				
			<u> </u>	1			1	1

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #						(Marks)	(Marks)	(Marks)
	Structural formula	Writing correct	Writing partially correct					
	of the Neo-pentane	structural formula of	formula of Neo-pentane	Wrong Answer (0)				
		Neo-pentane . (1)	(0.5)					
	Structural formula	Writing correct	Writing partially correct					
Q 2 (iii)	of the n-propane	structural formula of n-	formula of n-propane	Wrong Answer (0)				
		propane. (1)	(0.5)					
	Structural formula	Writing correct	Writing partially correct					
	of the Ethanol	structural formula of	formula of Ethanol (0.5)	Wrong Answer (0)				
		Ethanol. (1)	Torrida or Ethanor (0.5)					
OR	T	1		1		T	1	T
	Description of	Writing correct						
	carbohydrates with	description of	Partially Correct response	Wrong Answer (0)				
	example	carbohydrates with	(0.5)	Wrong / mawer (o)				
		example. (1)						
	Description of	Writing correct						
Q 2 (iii)	Lipids with example	description of Lipids	Partially Correct response	Wrong Answer (0)				
		with example. (1)	(0.5)					
	Description of	Writing correct						
	Oligosaccharides	description of	Partially Correct response					
	with example	Oligosaccharides with	(0.5)	Wrong Answer (0)				
	With example	example. (1)	(6.5)					
	Balance chemical	example: (1)						
	equations showing	Writing correct balance	Double III. source at many and a	Am, rala, a				
	the formation of salts	chemical equation of	Partially correct response	Any relevant information (0.5)	Wrong answer (0)			
	from Reaction of Salt	Reaction of Salt with salt (1.5)	(1)	וווטוווומנוטוו (ט.ס)				
Q 2 (iv)	with salt	. ,						
	Balance chemical	Writing correct balance						
	equations showing	chemical equation of	Partially correct response	Any relevant	Wrong answer (0)			
	the formation of salts from Reaction of acid	Reaction of acid with metal	(1)	information (0.5)	Wrong answer (0)			
	with metal oxide	oxide (1.5)						

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								
	Derivation of alkyl radical from b. Methane	Deriving correct alkyl Radical of Methane (1)	Partially Correct response (0.5)	Wrong answer (0)				
Q 2 (iv)	Derivation of alkyl radical from B . Iso-butane	Deriving correct alkyl Radical of Iso-Butane (1)	Partially Correct response (0.5)	Wrong answer (0)				
	Derivation of alkyl radical from c. Propane	Deriving correct alkyl Radical of Propane (1)	Partially Correct response (0.5)	Wrong answer (0)				
22()	Determination of the Kc expression.	Writing Correct expression (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
Q 2 (v)	Determination of the Kc units	Writing Correct units. (1.5)	Partially correct response (1)	Any relevant information(0.5)	Wrong answer (0)			
OR								
0.2 (v)	First comparison between Essential and Non- Essential Amino Acids	Writing Correct description of Essential Amino Acids. (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
Q 2 (v)	Second comparison between Essential and Non- Essential Amino Acids	Writing Correct description of Non- Essential Amino Acids. (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			

0 11 /	C. C. C.	1 - 14 (84 - 1 -)	1 - 12/84 - 1 -)	1 12 (04 - 1 -)	1 1 4 (84 - 1 -)	1	116	1
Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #	What is meant by chemical equilibrium in reversible chemical reactions	Writing correct description of chemical equilibrium (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)	(Marks)	(Marks)	(Marks)
	An example of chemical equilibrium in reversible chemical	Writing correct example (1)	Partially Correct response (0.5)	Wrong answer (0)				
OR								
	Enlistment of first way in which lakes and streams become polluted	Enlisting first correct way (1)	Enlisting partially correct first way (0.5)	Wrong answer (0)				
Q 2 (vi)	Enlistment of second way in which lakes and streams become polluted	Enlisting second correct way (1)	Enlisting partially correct second way (0.5)	Wrong answer (0)				
	Enlistment of third way in which lakes and streams become polluted	Enlisting third correct way (1)	Enlisting partially correct third way (0.5)	Wrong answer (0)				
Q 2	Calcinations	Writing correct description of Calcination (1)	Partially Correct response (0.5)	Wrong answer (0)				
(vii)	Reuse of released CO ₂ in Solvay's process	Writing correct description of released and reused of CO ₂ (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
OR				·	·	•		
Q 2 (vii)	Description of Hepatitis as water borne disease.	Writing correct description of Hepatitis (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)
	Description of Cholera as water borne disease.	Writing correct description of Cholera (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
Q 2	Differentiation of Alicyclic with the help of structural formulas	Writing correct Differentiation of Ali-cyclic compounds with structural formula (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
(viii)	Differentiation of cyclic compounds with the help of structural formula	Writing correct Differentiation of Cyclic compounds with structural formula (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
OR								
Q 2	Self ionization of water	Writing correct description (1)	Partially correct response (0.5)	Wrong answer (0)				
(viii)	Chemical equation of ionization of water	Writing correct equation (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
0.2(iii)	First method for the preparation of alkene.	Writing any first correct method. (1.5)	Partially correct response of first method (1)	Any relevant information (0.5)	Wrong answer (0)			
Q 2 (ix)	Second method for the preparation of alkene.	Writing any second correct method. (1.5)	Partially correct response of second method (1)	Any relevant information (0.5)	Wrong answer (0)			
OR	T			<u></u>				
Q 2 (ix)	First advantage of Solvay's process	Writing First correct advantage. (1)	Partially correct response (0.5)	Wrong answer (0)				

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part#	Second advantage of Solvay's process	Writing Second correct advantage. (1)	Partially correct response (0.5)	Wrong answer (0)		(Marks)	(Marks)	(Marks)
	Third advantage of Solvay's process	Writing Third correct advantage. (1)	Partially correct response (0.5)	Wrong answer (0)				
	Identification and naming of the functional groups in the following CH_3OCH_3	Writing correct identification and name of CH_3OCH_3 (1)	Partially Correct response (0.5)	Wrong answer (0)				
Q 2 (x)	Identification and naming of the functional groups in the following CH ₃ COOH	Writing correct identification and name of CH_3COOH (1)	Partially Correct response (0.5)	Wrong answer (0)				
	Identification and naming of the functional groups in the following CH_3NH_2	Writing correct identification and name of CH_3NH_2 (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)
	Completion of reaction $Cl - HC = CH - Cl + Zn \longrightarrow$	Writing complete correct reaction of $Cl-HC = CH-Cl+Zn \longrightarrow $ (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)	(IVIAI KS)	(ivial KS)	(IVIAI KS)
Q 2 (x)	Complete reaction $CH_3 - C \equiv CH + 2H_2 \xrightarrow{N_1,200-300^{\circ}C}$	Writing complete correct reaction of $CH_3 - C \equiv CH + 2H_2 \xrightarrow{Ni,200-300^{\circ}C}$ (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
0.2 (.:)	Global warming	Writing the correct description (1)	Writing partially correct description (0.5)	Wrong answer (0)				
Q 2 (xi)	Causes of global warming	Writing the correct cause (2)	Writing partially correct cause (1)	Any relevant information (0.5)	Wrong answer (0)			
OR								
0.27 ()	Urea	Writing correct description of urea (1)	Writing partially correct description (0.5)	Wrong answer (0)				
Q 2 (xi)	Names of raw materials used to prepare urea	Writing correct raw materials (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
	Statement of Law of Mass Action.	Writing the correct Statement (2)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
Q.3.	Derivation of an expression to determine equilibrium constant	Writing correct derivation in four steps (4)	Writing three correct steps (3)	Writing two correct steps (2)	Writing one correct step (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)
	Description of Lewis concept of acids with example	Writing correct description of Lewis acids with example (3)	Writing partially correct description (2)	Any relevant information (1)	Wrong answer (0)			
Q.3.	Description of Lewis concept of bases with examples	Writing correct description of Lewis base with examples (3)	Writing partially correct response. (2)	Any relevant information (1)	Wrong answer (0)			
	Hardness of water	Writing the correct description of hardness of water (2)	Writing partially correct response. (1)	Any relevant information (0.5)	Wrong answer (0)			
Q.4.	Explanation of Ion exchange method to remove hardness from water	Writing correct method to remove the hardness By Ion exchange method (2)	Writing partially correct response. (1)	Any relevant information (0.5)	Wrong answer (0)			
	Explanation of the boiling method to remove hardness from water	Writing correct method to remove the hardness By boiling method (2)	Writing partially correct response. (1)	Any relevant information (0.5)	Wrong answer (0)			

	Nucleic acids	Writing the correct description (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		
Q.4.	DNA	Writing the correct description of DNA (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		
	RNA	Writing the correct description of RNA (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #						(Marks)	(Marks)	(Marks)
Q.5.	Chemical equations showing reaction Of KMnO ₄ with alkenes	Writing correct chemical equation of reaction with alkenes (2)	Writing partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
Q.5.	Chemical equations showing reaction Of KMnO ₄ with alkynes	Writing correct chemical equation of reaction with alkynes (2)	Writing partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
OR								

	0.5	Bessemerization	Writing the correct description of bessemerization (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		
	Q.5.	Difference of bessemerization from cyclone separation	Writing the correct differentiation between bessemerization and cyclone separation. (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		
		Enlistment of any first fraction obtained by distillation of petroleum. Also write their uses.	Writing correct name and use of 1 st fraction (1)	Partially correct response (0.5)	Wrong answer (0)			
	Q.6.	Enlistment of any second fraction obtained by distillation of petroleum. Also write their uses.	Writing correct name and use of 2 nd fraction (1)	Partially correct response (0.5)	Wrong answer (0)			

Q.# /	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5	Level 6	Level 7
Part #						(Marks)	(Marks)	(Marks)
	Enlistment of any third fraction obtained by distillation of petroleum. Also write their uses.	Writing correct name and use of 3 rd fraction (1)	Partially correct response (0.5)	Wrong answer (0)				
	Enlistment of any fourth fraction obtained by distillation of petroleum. Also write their uses.	Writing correct name and use of 4 th fraction (1)	Partially correct response (0.5)	Wrong answer (0)				

	First differentiation between Stratosphere and troposphere	Writing one correct description of stratosphere (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		
Q.6.	Second differentiation between Stratosphere and troposphere	Writing One correct description of troposphere (2)	Writing partially correct description (1)	Any relevant information (0.5)	Wrong answer (0)		