

Rubric Chemistry SSC-II (Hard Area) Annual Exam 2023

Section B

FINAL 28-4-2023 (6:33PM)

Q No. Part No	Criteria	Level 1 (Marks)	Level 2 (Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)	Level 7 (Marks)
Q # 2(i)	Stating law of mass action and writing equilibrium constant expression	Writing correct statement (2)	Partially correct statement (1)	Any relevant (0.5)	Wrong (0)			
		Writing correct Equilibrium constant expression (1)	Partially correct Equilibrium constant expression (0.5)	Wrong answer (0)				
2(ii)	Classification of given substances as lewis acid and base.	Correct classification of six substances (03)	Correct classification of five substances (2.5)	Correct classification of four substances (02)	Correct classification of three substances (1.5)	Correct classification of two substances (01)	Correct classification of one substance (0.5)	Wrong Answer (0)
2(iii)	Writing balanced chemical equation	Correctly writing complete and balanced chemical equation (03)	Correctly writing reaction without balancing (2.5)	Partially correct response (02)	Any relevant (01)	Wrong (0)		
2(iv)	Identification of functional groups	Correct identification of the three functional groups (1.5)	Correct identification of any two functional groups (1)	Correct identification of any one functional group (0.5)	Wrong answer (0)			

	Naming of Functional groups	Correctly naming the three functional groups (1.5)	Correctly naming any two functional groups (1)	Correctly naming any one functional group (0.5)	Wrong answer (0)			
2(v)	Predicting molecular, structural and condensed formula of octane	Writing all three correct formulas (3)	Writing any two correct formulas (2)	Writing any one correct formula (1)	Wrong answer (0)			
2(vi)	Identifying the product and completing the reactions (first equation)	Writing/Identifying correct name of the product and correctly completing the reaction (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
	Identifying the product and completing the reactions (second equation)	Writing/Identifying correct name of product and correctly completing the reaction (1.5)	Partially correct response (1)	Any relevant information (0.5)	Wrong answer (0)			
2(vii)	Identification of A & B in given reaction	Correct identification of A (1.5)	Partially correct response (01)	Wrong answer (0)				
		Correct identification of B (1.5)	Partially correct response (01)	Wrong answer (0)				

2(viii)	What is house hold waste in water and its harmful effects	Writing correct description (1.5)	Partially correct description (01)	Any relevant information (0.5)	Wrong answer (0)			
		Writing three correct harmful effects (1.5)	Writing two correct harmful effects (1)	Writing one correct harmful effects (0.5)	Wrong answer (0)			
2(ix)	Writing structural formulas of glucose and fructose	Writing correct structural formulas of both (02)	Writing correct structural formulas of one and partially correct for the other one (1.5)	Writing correct structural formulas of any one (01)	Any relevant information (0.5)	Wrong answer (0)		
	Identification of their functional groups	Correct Identification of both (1)	Correct Identification of any one (0.5)	Wrong answer (0)				
2(x)	Writing harmful effects of sulphur dioxide	Writing three correct harmful effects (03)	Writing two correct harmful effects (02)	Writing one correct harmful effect (01)	Wrong answer (0)			
2(xi)	Describing global warming	Writing correct description (01)	Partially correct resonse (0.5)	Wrong answer (0)				
	Enlisting its harmful effects	Correctly enlisting two harmful effects (02)	Correctly enlisting one harmful effect (01)	Any relevant information (0.5)	Wrong answer (0)			

2(xii)	Explanation of strange behavior of water and its enabling impacts on survival of aquatic life in winter	Writing correct Strange behavior of water (3)	Writing Partially correct Strange behavior of water (2)	Any relevant information (1)	Wrong answer (0)			
2(xiii)	Enlisting raw material for Solvay's process	Enlisting three correct raw materials (03)	Enlisting two correct raw materials (02)	Enlisting one correct raw material (01)	Wrong answer (0)			
2(xiv)	Advantages of using urea as fertilizer	Writing three correct advantages (03)	Writing two correct advantages (02)	Writing one correct advantage (01)	Wrong answer (0)			
2(xv)	Definition of substitution reaction	Correct definition (01)	Partially correct response (0.5)	Wrong answer (0)				
	Writing chemical reactions of halogen with methane	Writing four correct reactions (02)	Writing three correct reactions (1.5)	Writing any two correct reactions (1)	Writing any one correct reaction (0.5)	Wrong answer (0)		

SECTION :C

Q NO. 3a)	Brief explanation of 'petroleum'	Describing correctly the term petroleum (02)	Partially correct response (1)	Any relevant information (0.5)	Wrong response (0)					
	Description of important fractions of petroleum	Writing correct description of 8 fractions (04)	Writing correct description of 7 fractions (3.5)	Writing correct description of 6 fractions (3)	Writing correct description of 5 fractions (2.5)	Writing correct description of 4 fractions (2)	Writing correct description of 3 fractions (1.5)	Writing correct description of 2 fractions (1)	Writing correct description of 1 fraction (0.5)	Wrong response (0)
3b)	Describing Arrhenius concept of Acid with example	Writing correct statement with example (02)	Writing correct statement without example (1.5)	Writing partially correct response (1)	Wrong response (0)					
	Describing Arrhenius concept of base with example	Writing correct statement with example (02)	Writing correct statement without example (1.5)	Writing partially correct response (1)	Wrong response (0)					
4(a)	Describing methods to remove permanent	Correctly writing one method with	Writing partially correct response	Relevant information (01)	Wrong answer (0)					

	hardness of water	chemical equation (2.5)	(2)							
		Correctly writing one method with chemical equation (2.5)	Writing partially correct response (2)	Relevant information (01)	Wrong answer (0)					
4(b)	Description of ozone hole.	Writing correct description of ozone hole (01)	Partially correct response (0.5)	Wrong answer (0)						
	Describing the depletion of ozone layer by CFCs with the help of chemical equation	Correctly describing the depletion with the help of three chemical equations (04)	Correctly describing the depletion with the help of two chemical equations (03)	Correctly describing the depletion with the help of one chemical equation (02)	Partially correct response (01)	Wrong answer (0)				
5(a)	Describing reversible reaction	Writing correct description of reversible reaction (02)	Partially correct response (01)	Any relevant information (0.5)	Wrong (0)					

	Stating necessary conditions for chemical equilibrium	Writing three correct conditions for chemical equilibrium (03)	Writing any two correct conditions for chemical equilibrium (02)	Writing any one correct condition for chemical equilibrium (01)	Wrong answer (0)		
5(b)	Differentiation between DNA and RNA	Writing five correct differences (05)	Writing any four correct differences (04)	Writing any three correct differences (03)	Writing any two correct differences (02)	Writing any one correct difference (01)	Wrong Answer (0)

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