

1004B(15)

F VALUATION

(Scoring Indicators)

Revision: 2015		Course Title: Engineering Chemistry I		
Course Code: 1004				
Qn. No.	Scoring Indicator	Split up score	Sub total	Total
<u>PART-A</u>				
I.1	Definition	1	2	10
	Mathematical expression	1		
I.2	Catalytic promoter definition	1	2	
	Catalytic poison definition	1		
I.3	Definition	1	2	
	Reason for hardness	1		
I.4	Any two uses	2	2	
I.5	Atomic number definition	1	2	
	Mass number definition	1		
<u>PART-B</u>				
II.1	Any two methods	2x 3	6	
II.2	Definition of 3 concepts	3x2	6	
II.3	Permanent hardness	2	6	
	Brief explanation of Ion exchange method	4		
II.4	Effect of 3 impurities	3x2	6	
II.5	Fundamental particles of 3 atoms	3x2	6	
II.6	Any six applications	6x1	6	
II.7	Definition	2	6	
	Any four characteristics	4		

		<u>PART-C</u>		
III.a	Definitions – 1.5 marks each Examples- 1 mark each	5	15	
III.b	Any five applications	5		
III.c	Any five differences	5		
IV.a	Definition- 1 mark Any four characteristics- 4	5	15	
IV.b	Definition – 1 mark Brief explanation of Activity- 2 marks, Selectivity- 2 marks	5		
IV.c	Any five applications	5		
V.a	Definition- 2 marks Cl^- , NH_4^+ , NO_3^- - 3 marks	5	15	
V.b	Calculation of concentration- 2 marks Calculation of pOH – 2 marks Writing pH value- 1 mark	5		
V.c	Principle $N_a V_a = N_b V_b$ –2 marks Definition of 3 terms - 3 marks	5		
VI.a	Definition of indicator- 1 mark Explanation of choice of indicator- 2x2= 4 marks	5	15	
VI.b	Definition- 1 mark Classification- 2 marks Examples (1 mark each)- 2x1= 2 marks	5		
VI.c	Volumetric equation- 1 mark Volumetric calculation & result- 1 mark Equivalent weight calculation- 1 mark Strength equation ($\text{Wt/ Litre} = \text{Normality} \times \text{Eq. Wt}$)-1 mark Strength calculation & result- 1 mark	5		

VII.a	Any five differences	5	15	
VII.b	Definition- 2 marks			
	Brief explanation of desalination- 2 marks Diagram- 1 mark	5		
VII.c	Any five properties	5		
VIII.a	Brief explanation of 5 stages	5	15	
VIII.b	Reason for temporary hardness- 1 mark			
	Mentioning removal methods- 1 mark Explanation of any one method- 3 marks	5		
VIII.c	Brief explanation of the hazards	5		
IX.a	Definition- 1 mark		15	
	Any 4 purposes - 4 marks	5		
IX.b	Any three advantages- 3 marks			
	Any two disadvantages- 2 marks	5		
IX.c	Composition- 2 marks			
	Fusion method- 3 marks	5		
X.a	Any five physical properties	5	15	
X.b	Brief explanation of 5 steps	5		
X.c	Definition of heat treatment – 2 marks			
	Any three differences between Annealing and Quenching- 3 marks	5		