



	calculate the normality of this solution. [Na=23, Cl=35.5]	
c)	State all the statements of 1 <sup>st</sup> law of thermodynamics.	04
<b>Q-5</b>	<b>Attempt all questions</b>	<b>(14)</b>
a)	Write any three uses of adsorption.	02
b)	Explain and derive Langmuir adsorption isotherm equation.	07
c)	Give a short note on Freundlich adsorption isotherm.	05
<b>Q-6</b>	<b>Attempt all questions</b>	<b>(14)</b>
a)	Explain all thermodynamic processes.	07
b)	Explain the buffer action of an acidic buffer.	05
c)	Define the following terms:	02
	i) Ph of solution	
	ii) Degree of hydrolysis	
<b>Q-7</b>	<b>Attempt all questions</b>	<b>(14)</b>
a)	How to prepare 1000 ml standard solution borax?	05
b)	Calculate molarity of 1 liter's solution containing 50gm of NaOH.	04
c)	Derive Henderson equation to calculate the pH of an acidic buffer solution.	05
<b>Q-8</b>	<b>Attempt all questions</b>	<b>(14)</b>
a)	Write the difference between the part per million and part per thousand.	04
b)	Discuss mechanism of acid and basic buffer solution	07
c)	Write a note on electron affinity.	03

