



**B. P. Poddar Institute of Management & Technology, Kol – 52.**

**DEPARTMENT OF APPLIED SCIENCE & HUMANITIES**

**Laboratory Name: Chemistry Lab**  
**Course Name: Chemistry-I Laboratory**  
**Academic Year: 2018-19**

**Room No.: A-102 & A-103**  
**Course Code –BS-CH191**  
**Semester: Odd**

**Programme: Electrical Engineering**

**COURSE OBJECTIVE**

Students will able to

1	Separate and estimate acids from mixtures by separation and adsorption methods as well as measure the viscosity of fluids.
2	Estimate some parameters that affect water quality by volumetric and electrochemical titrations/experiments.
3	Gain practical knowledge to determine the rate constant of pseudo unimolecular reaction and distribution coefficient.

**COURSE OUTCOMES**

The combination of lecture and laboratory sessions provides learning opportunities that should enable the student to do the following upon completion of this course

<i>Course Code</i>	<i>Course Outcome</i>	PO(1..12) MAPPING	PSO(1..2) MAPPING	<i>Bloom's Taxonomy level</i>
CH191.1 (CO1)	Analyze different components from their mixtures by adsorption and TLC method.	PO1, PO2, PO5, PO12	PSO2	L4(Analyze)
CH 191.2 (CO2)	Estimate the concentration of acid/alkali, by conductometric/potentiometric method and emf using electrochemical cells.	PO1, PO2, PO5, PO12	PSO2	L3 (Apply)
CH191.3 (CO3)	Calculate the composition of given solution using Oswald Viscometer.	PO1	-	L4 (Analyze)
CH191.4 (CO4)	Determine rate constant for hydrolysis of ester by acid catalyzed and distribution coefficient of acetic acid between n-butanol and water	PO1	-	L3(Apply)
CH191.5 (CO5)	Determine the amount of chloride and dissolved oxygen present in a given water sample	PO1, PO2, PO7	-	L4(Analyze)

**COURSE OUTCOMES VS POs MAPPING (HIGH:3; MEDIUM:2;LOW:1):**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO2
CH101.1 (CO1)	1	1	-	-	1	-		-	-	-	-	1	1
CH101.2 (CO2)	1	1	-	-	1	-	-	-	-	-	-	1	1
CH101.3 (CO3)	1	-	-	-	-	-	-	-	-	-	-	-	-
CH101.4 (CO4)	1	-	-	-	-	-	-	-	-	-	-	-	-
CH101.5 (CO5)	1	1	-	-	-	-	1	-	-	-	-	-	-
<b>CH191</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>

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**Signature of Faculty**

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**Signature of HOD**