

SILIGURI INSTITUTE OF TECHNOLOGY

EVALUATION PROCEDURE FOR CHEMISTRY LAB (CH-191/CH-291)

CATEGORIES		Excellent: 5	Very Good: 4	Good: 3	Fair: 2	Unsatisfactory: 1
Attendance		Punctual in the lab and experiment is completed within the specific time.	Late in the lab but experiment is completed within the specific time.	Late in the lab but experiment is not completed within the specific time.	Experiment is done in extra class due to absence on assigned days.	Experiment is not done in the extra class also.
Lab Technique	Lab performances	Demonstrates very good knowledge of both theory and experimental procedure.	Demonstrates good knowledge of both theory and experimental procedure.	Demonstrates average knowledge of both theory and experimental procedure.	Demonstrates poor idea of theory and experimental procedure.	Demonstrates reluctance of either theory or experimental procedure.
	Data accumulation	Measurements, skills or techniques are very good and accurate.	Measurements, skills or techniques are good and fairly accurate.	Measurements, skills or techniques are average and fairly accurate.	Measurements, skills or techniques are poor and inaccurate.	Measurements, skills or techniques are inadequate and inaccurate.
	Data analysis & Calculation	Data is clearly represented and step wise calculations are presented. If necessary, graph is plotted with proper labelling along with units.	Data is clearly represented but step wise necessary calculations are missing. If necessary, graph is plotted with proper labelling.	Data is clearly represented and step wise necessary calculations are missing. If necessary, graph is plotted without proper labelling.	Either data are incomplete or step wise calculations are missing or necessary graph is not correctly scaled and labeled.	Data, calculations and graph are incomplete.
	Interaction with Group	Excellent team work with proper attitude.	Very good team work with proper attitude.	Good team work with proper attitude.	Minimum team work with lack of proper attitude.	No team work and lack of proper attitude.
Lab Report	Timely submission	Writing Fair Lab copy properly and submit before performing the next practical.	Writing fair Lab copy properly and late submission.	Writing fair Lab copy partially and submit before performing the next practical.	Writing fair Lab copy partially and late submission.	Incomplete Lab copy and irregular submission.

A STUDENT HAVE TO COMPLETE EIGHT EXPERIMENTS, EACH PRACTICAL WILL BE OUT OF 30 MARKS.

EVALUATION PROCEDURE OF A STUDENT FOR CHEMISTRY LAB [CH-191/291] ON THE SCALE OF 40 [i.e (GRAND TOTAL / 240) *40]

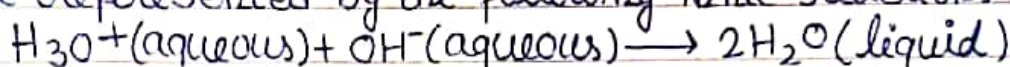
SILIGURI INSTITUTE OF TECHNOLOGY											
EVALUATION SHEET FOR CHEMISTRY LAB (BS-CH191/CH291)											
Student Name: ARUPA DAS		Roll No: 88			Section: CSEB2			Sem: 2nd		Year: 2019	
CATEGORIES	Expt: 1	Expt: 2	Expt: 3	Expt: 4	Expt: 5	Expt: 6	Expt: 7	Expt: 8	Expt: 9	Expt: 10	TOTAL
Attendance	4	5	5	4	4	5	5	5			
Lab Technique	Lab performances	5	5	5	5	5	5	5			
	Data accumulation	5	4	4	4	5	4	5			
	Data analysis & Calculation	5	5	5	5	5	5	5			
	Interaction with Group	5	5	5	5	5	5	4	5		
Lab Report	Timely submission	5	5	5	5	5	5	5			232
TOTAL		29	29	29	28	29	29	30			39
REMARKS		late in the lab			late in the lab.	late in the lab.					
SIGNATURE OF TECHNICAL ASSISTANTS / LAB INSTRUCTOR WITH DATE		<i>[Signature]</i> 01/11/19	<i>[Signature]</i> 01/11/19	<i>[Signature]</i> 20/8/19	<i>[Signature]</i> 12/9/19	<i>[Signature]</i> 01/11/19	<i>[Signature]</i> 12/11/19	<i>[Signature]</i> 23/11/19	<i>[Signature]</i> 29/11/19		<i>[Signature]</i> 01/11/19
SIGNATURE OF FACULTY WITH DATE		<i>[Signature]</i> 9/11	<i>[Signature]</i> 24/11	<i>[Signature]</i> 9/11	<i>[Signature]</i> 26/11	<i>[Signature]</i> 12/11/19	<i>[Signature]</i> 12/11	<i>[Signature]</i> 12/11	<i>[Signature]</i> 14/11		<i>[Signature]</i> 9/11/19

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CONDUCTOMETRIC TITRATION

Determination of strength of a given solution of HCl by titration against a standard solution of NaOH.

Principle :- When an acid is added to a base, there is a reaction between the hydronium ions (H_3O^+) and the hydroxyl ions (OH^-). This can be represented by the following ionic reaction:



When the amount of base increases, the conductance will be lowered as the result of the disappearance of hydronium ions (H_3O^+). (The hydronium ions (H_3O^+) have a high molar conductivity while the cations from the base have a much lower molar conductivity). When the hydronium ions (H_3O^+) have all been neutralized, the increase in excess base concentration will result in a sudden ~~in the~~ increase in the conductivity of the solution. This phenomenon is due to the high molar conductivity of hydroxyl ions (OH^-).

Apparatus :- Chemical balance, weighing bottle, volumetric flask, Burette, Erlenmeyer flask, pipettes, Conductivity Bridge, conductivity cell.

Reagents :- Oxalic acid, (N/5) NaOH solution, (N/20) HCl solution, Phenolphthalein indicator.

Procedure :-

1. Preparation of 250ml standard N/10 oxalic acid ($H_2C_2O_4 \cdot 2H_2O$) solution: About 1.575g oxalic acid is weighed out accurately in 250ml volumetric flask and dissolved in distilled water.

Teacher's Signature : _____

2. Standardization of supplied NaOH solution with the standard Oxalic acid solution:

25ml NaOH solution is pipetted out in a 250ml conical flask. Two drops of phenolphthalein indicator is added to it and the solution become pink. The solution is titrated against standard Oxalic acid solution and at the end point the solution become colourless.

3. Titration of NaOH solution by standard HCl solution conductometrically; 25 ml given HCl solution is pipetted out in a 250ml beaker and 125 ml deionised water is added to it. Conductivity cell is placed in a beaker so that the electrodes are completely immersed in the acid solution. Conductance of the solution is measured and noted down. Initially 10 drops and then 5 drops (near the end point) of NaOH solution are added and conductance is measured after each addition.

Plot the 'conductance' against 'correspond 'titre values', draw the straight lines and obtain the point of equivalence at intersection.

Results and Calculation:-

Table 1 :- Preparation of standard 0.1(N) Oxalic acid solution.

Initial weight (W_1) g	Final weight (W_2) g	Weight taken ($W_1 - W_2$) g
20+20+2+2+200mg+50mg +100mg+40 = 44.840g	20+20+2+1+200mg+65mg = 43.265g	1.575g

Teacher's Signature : _____

Strength of NaOH solution,

$$S_2 = V_1 * S_1 / V_2 (N)$$
$$= \frac{46.33 \times 0.1}{25}$$
$$= 0.185$$

$$V_1 = 46.33 \text{ mL}$$

$$S_1 = 0.1 (N)$$

$$V_2 = 25 \text{ mL}$$

$$S_2 = ?$$

Strength of oxalic acid solution (S_1) = $(W_1 - W_2) / 1.575 * 0.1(N)$

Table 2 :- Standardization of NaOH solution.

SI NO	Volume of NaOH Solution pipetted out (V_2 ml)	Burette reading: volume of oxalic acid solution in ml	Mean volume (V_1 ml)	Strength of NaOH solution (S_2)
1.	25	46.3		
2.	25	46.4	46.33	0.185
3.	25	46.3		

Strength of NaOH solution (S_2) = $V_1 * S_1 / V_2 (N)$
 $= 0.185 (N)$

Table 3 :- Titration of NaOH solution by standard HCl solution conductometrically.

Volume of given acid solution (V_3) = 25 ml

SI NO.	No. of drops of NaOH solution added	Conductance (Ωm^{-1})
1	0	2.13
2	5	2.08
3	10	2.00
4	15	1.90
5	20	1.80
6	25	1.73
7	30	1.63
8	35	1.55
9	40	1.46

Teacher's Signature : _____

Strength of HCl solution ~~(N)~~,

$$\begin{aligned} S_3 &= \frac{V_4 * S_2}{V_3} \\ &= \frac{4.72 \times 0.0185}{25} \\ &= 0.034(N) \end{aligned}$$

There,

$$V_4 = 4.72 \text{ mL}$$

$$S_2 = 0.185(N)$$

$$V_3 = 25 \text{ mL}$$

$$S_3 = ?$$

10	45	1.37
11	50	1.28
12	55	1.17
13	60	1.08
14	65	1.00
15	70	0.91
16	75	0.81
17	80	0.76
18	85	0.79
19	90	0.82
20	95	0.85
21	100	0.87
22	105	0.91
23	110	0.96
24	115	1.04
25	120	1.09
26	125	1.15
27	130	1.20
28	135	1.27
29	140	1.33
30	145	1.39
31	150	1.45

1 ml \rightarrow 18 drops

$$85 \text{ drops} = \frac{1}{18} \times 85 = 4.72 \text{ ml} = V_4$$

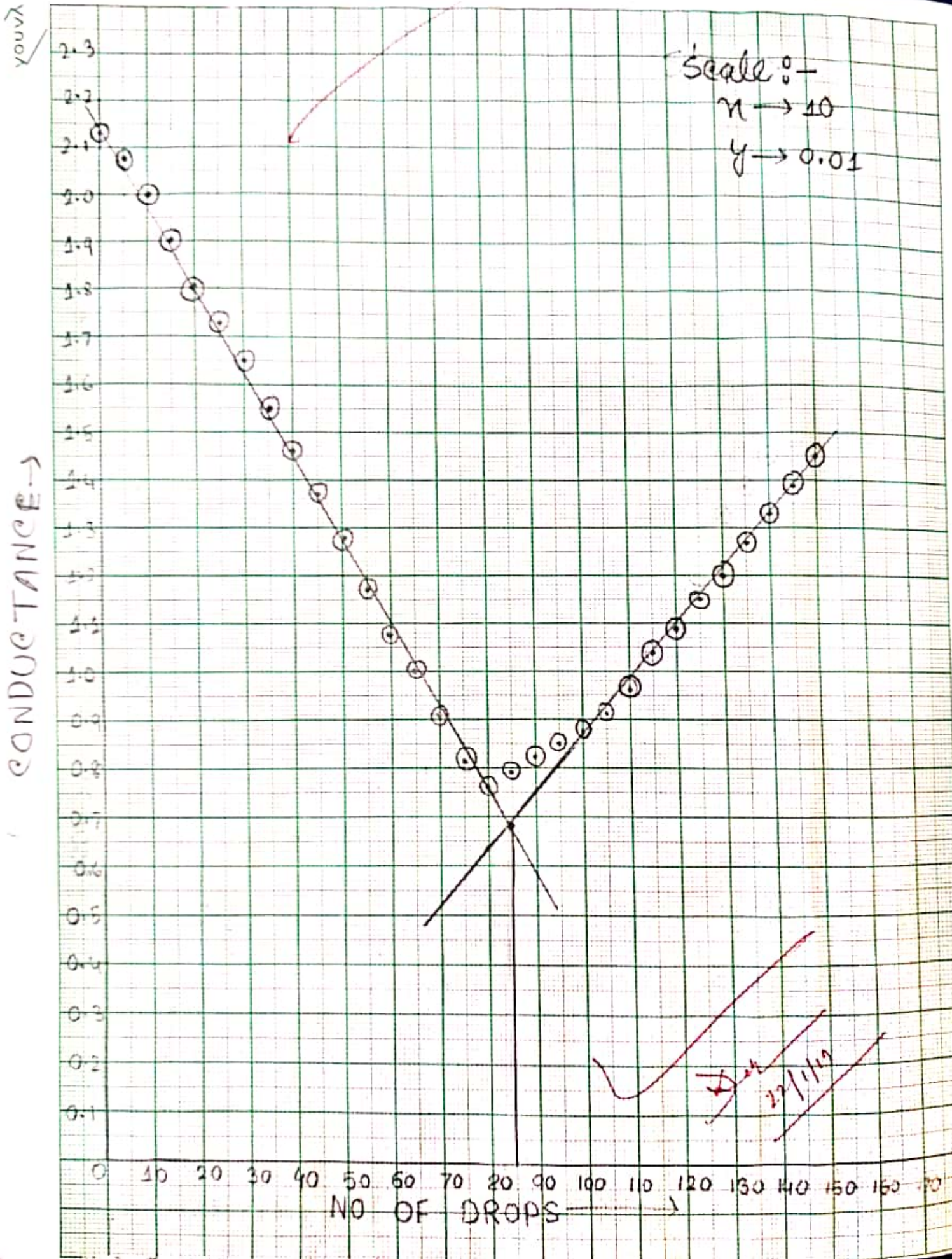
Strength of HCl solution (S_3) =

$$V_4 * S_2 / V_3 (N)$$

$$= 0.034 (N)$$

Teacher's Signature : _____

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12/3/19



SILIGURI INSTITUTE OF TECHNOLOGY
EVALUATION PROCEDURE FOR CHEMISTRY LAB (BS-CH191/CH291)

CATEGORIES		Excellent: 5	Very Good: 4	Good: 3	Fair: 2	Unsatisfactory: 1
Attendance		Punctual in the lab and experiment is completed within the specific time.	Late in the lab but experiment is completed within the specific time.	Late in the lab but experiment is not completed within the specific time.	Experiment is done in extra class due to absence on assigned days.	Experiment is not done in the extra class also.
Lab Technique	Lab performances	Demonstrates very good knowledge of both theory and experimental procedure.	Demonstrates good knowledge of both theory and experimental procedure.	Demonstrates average knowledge of both theory and experimental procedure.	Demonstrates poor idea of theory and experimental procedure.	Demonstrates reluctance of either theory or experimental procedure.
	Data accumulation	Measurements, skills or techniques are very good and accurate.	Measurements, skills or techniques are good and fairly accurate.	Measurements, skills or techniques are average and fairly accurate.	Measurements, skills or techniques are poor and inaccurate.	Measurements, skills or techniques are inadequate and inaccurate.
	Data analysis & Calculation	Data is clearly represented and step wise calculations are presented. If necessary, graph is plotted with proper labelling along with units.	Data is clearly represented but step wise necessary calculations are missing. If necessary, graph is plotted with proper labelling.	Data is clearly represented and step wise necessary calculations are missing. If necessary, graph is plotted without proper labelling.	Either data are incomplete or step wise calculations are missing or necessary graph is not correctly scaled and labeled.	Data, calculations and graph are incomplete.
	Interaction with Group	Excellent team work with proper attitude	Very good team work with proper attitude	Good team work with proper attitude	Minimum team work with lack of proper attitude	No team work and lack of proper attitude
Lab Report	Timely submission	Writing Fair Lab copy properly and submit before performing the next practical.	Writing fair Lab copy properly and late submission.	Writing fair Lab copy partially and submit before performing the next practical.	Writing fair Lab copy partially and late submission.	Incomplete Lab copy and irregular submission.

A STUDENT HAVE TO COMPLETE EIGHT EXPERIMENTS, EACH PRACTICAL WILL BE OUT OF 30 MARKS.

EVALUATION PROCEDURE OF A STUDENT FOR CHEMISTRY LAB [CH-191/291] ON THE SCALE OF 40 [i.e (GRAND TOTAL / 240) *40]

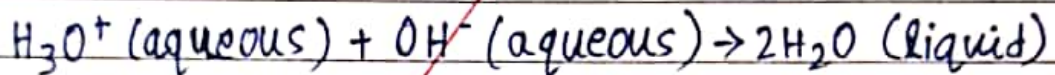
SILIGURI INSTITUTE OF TECHNOLOGY											
EVALUATION SHEET FOR CHEMISTRY LAB (BS-CH191/CH291)											
Student Name: SAIKAT SARKAR		Roll No: 45			Section: ECE/2			Sem: 1st		Year: 2019	
CATEGORIES	Expt: 1	Expt: 2	Expt: 3	Expt: 4	Expt: 5	Expt: 6	Expt: 7	Expt: 8	Expt: 9	Expt: 10	TOTAL
Attendance	5	5	5	5	5	5	5	5			
Lab Technique	Lab performances	5	5	5	5	5	4	5	5		
	Data accumulation	5	5	5	4	5	4	4	4		
	Data analysis & Calculation	5	5	5	5	5	5	5	5		
	Interaction with Group	5	5	5	5	5	5	5	5		
Lab Report	Timely submission	5	5	5	5	5	5	5			
TOTAL	30	30	30	29	30	28	29	29			235
REMARKS											39.16
SIGNATURE OF TECHNICAL ASSISTANTS / LAB INSTRUCTOR WITH DATE	<i>[Signature]</i> 17/10/19	<i>[Signature]</i> 31/10/19	<i>[Signature]</i> 27/11/19	<i>[Signature]</i> 14/11/19	<i>[Signature]</i> 19/9/19	<i>[Signature]</i> 15/10/19	<i>[Signature]</i> 21/10/19	<i>[Signature]</i> 20/8/19			<i>[Signature]</i> 27/11/19
SIGNATURE OF FACULTY WITH DATE	<i>[Signature]</i> 31/10	<i>[Signature]</i> 14/11	<i>[Signature]</i> 14/11	<i>[Signature]</i> 19/11	<i>[Signature]</i> 17/10	<i>[Signature]</i> 14/9	<i>[Signature]</i> 28/18	<i>[Signature]</i> 12/19			

CONDUCTOMETRIC TITRATION

Determination of strength of a given solution of HCl by titration against a standard solution of NaOH.

Principle :

When an acid is added to a base, there is a reaction between the hydronium ions (H_3O^+) and the hydroxyl ions (OH^-). This can be represented by the following ionic reaction :



When the amount of base increases, the conductance will be lowered as the result of the disappearance of hydronium ions (H_3O^+). (The hydronium ions (H_3O^+) have a higher molar conductivity while the cations from the base have a much lower molar conductivity). When the hydronium ions (H_3O^+) have all been neutralized, the increase in excess base concentration will result in a sudden increase in the conductivity of the solution. This phenomenon is due to the high molar conductivity of hydroxyl ions (OH^-).

Apparatus :

Chemical balance, Weighing bottle, volumetric flask, Burette, Erlenmeyer flask, Pipettes, Conductivity Bridge, conductivity cell.

Reagents :

Oxalic acid, (N/5) NaOH solution, (N/20) HCl solution, Phenolphthalein indicator.

Teacher's Signature _____

Procedure:

1. Preparation of 250 ml standard N/10 oxalic acid ($H_2C_2O_4 \cdot 2H_2O$) solution:

About 1.575g oxalic acid is weighed out accurately in 250 ml volumetric flask and dissolved in distilled water.

2. Standardization of supplied NaOH solution with the standard oxalic acid solution:

25ml NaOH solution is pipetted out in a 250ml conical flask. Two drops of Phenolphthalein indicator is added to it and the solution become pink. The solution is titrated against standard oxalic acid solution and at the end point the solution become colourless.

3. Titration of NaOH solution by standard HCl solution conductometrically:

25ml given HCl solution is pipetted out in a 250 ml beaker and 175ml deionised water is added to it. Conductivity cell is placed in a beaker so that the electrodes are completely immersed in the acid solution. Conductance of the solution is measured and noted down. Initially 10 drops and then 5 drops (near the end point) of NaOH solution are added and conductance is measured after each addition.

Plot the 'conductance' against correspond 'titre values', draw the straight lines and obtain the point of equivalence at intersection.

Teacher's Signature _____

Results and Calculation:

Table 1: Preparation of standard 0.1(N) oxalic acid solution.

Initial weight (w_1)g	final weight (w_2)g	weight taken ($w_1 - w_2$)g
20g + 20g + 200mg + 100mg + 72mg = 40.372 gm	20g + 10g + 5g + 2g + 1g + 100mg + 94mg = 38.194 gm	40.372g - 38.194g = 2.178g

$$\text{Strength of oxalic acid solution } (S_1) = \frac{(w_1 - w_2)}{1.575} \times 0.1(N)$$

$$= \frac{2.178}{1.575} \times 0.1 = 0.138(N)$$

Table 2: Standardization of NaOH solution.

Sl. No.	Volume of NaOH solution pipetted out (V_2 ml)	Burette reading: Volume of oxalic acid solution in ml.	Mean volume (V_1 ml)	Strength of NaOH solution (S_2)
1.	25	31.5		
2.	25	30.4	32.63	0.180 (N)
3.	25	36.0		

$$\text{Strength of NaOH solution } (S_2) = \frac{V_1 \times S_1}{V_2} (N)$$

$$= \frac{32.63 \times 0.138}{25} = 0.180(N)$$

Teacher's Signature _____

$\lambda_{\text{max}} = 689 \text{ nm}$
 $\lambda_{\text{min}} = 410 \text{ nm}$

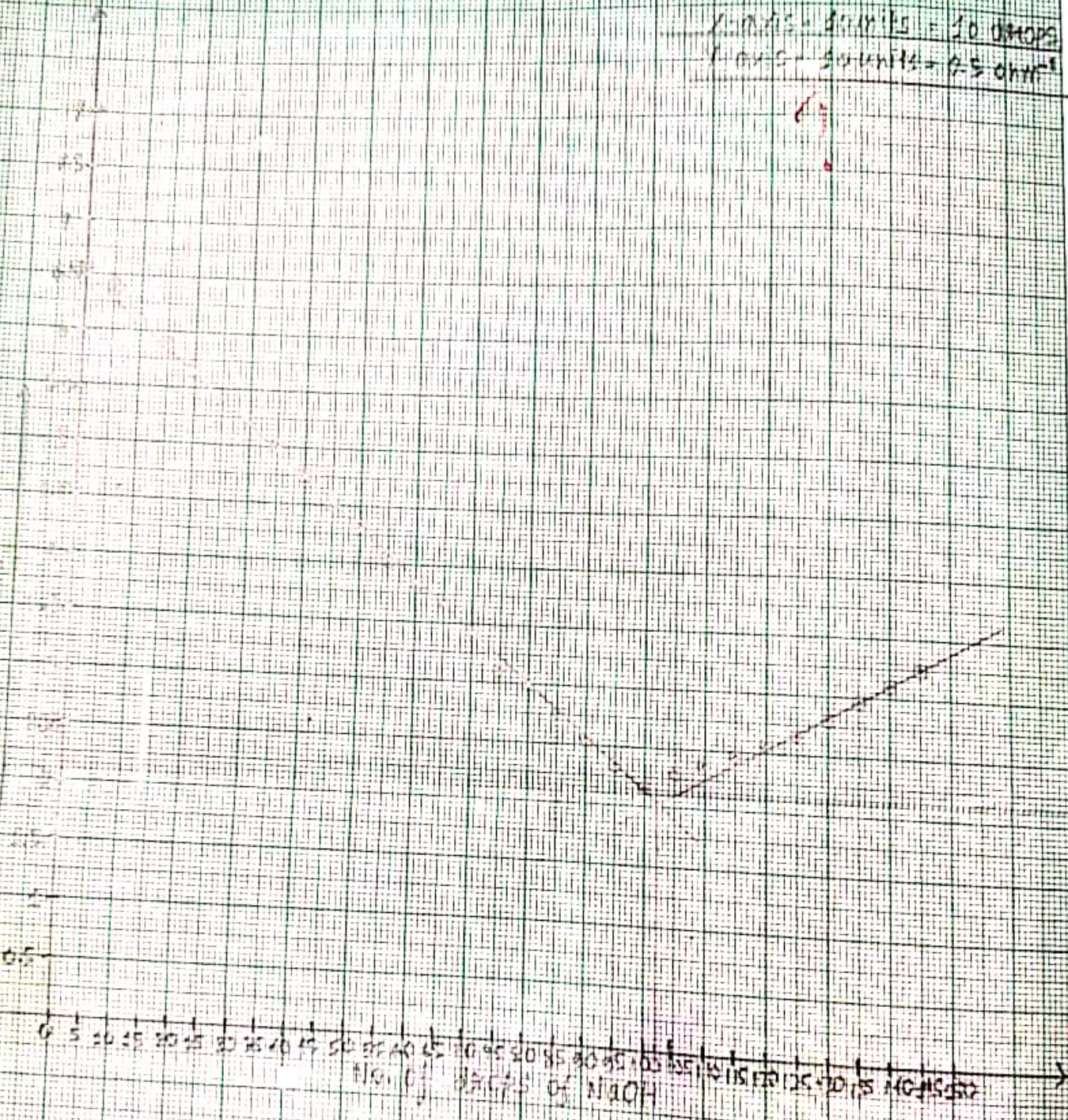


FIG. 10. Wavelengths of NaOH

22/8/19
 [Signature]

24.	115	2.46
25.	120	2.57
26.	125	2.68
27.	130	2.81
28.	135	2.95
29.	140	3.09
30.	145	3.24

No. of drops of NaOH solution at equivalence point (x)
(from plot) = 102 drops

$$15 \text{ drops} = 1 \text{ ml}$$

$$1 \text{ drop} = \frac{1}{15} \text{ ml}$$

$$102 \text{ drops} = \frac{1}{15} \times 102$$

$$(V_1)$$

$$= 6.8 \text{ ml}$$

$$\text{Strength of HCl solution } (S_2) = \frac{V_1 \times S_1}{V_2} (N)$$

$$= \frac{6.8 \times 0.18}{25}$$

$$= 0.048 (N)$$

Teacher's Signature _____

B.Tech. 1st Year, 2nd Sem, 2019
Physics-I Laboratory (BS-PH-291) Evaluation Rubrics

A student has to complete ten experiments within the semester. In each week, student will be allowed to do only one experiment as per his/her allotment. This internal evaluation of Physics-I laboratory will be done in a total of 100 marks. The distribution and explanation of the marks are as follow:

Attendance: 5 Marks

The evaluation of attendance will be done at the end of the semester based on regularity and punctuality of the student.

Lab Technique:

The lab technique for each experiment in each week will be evaluated as per given rubrics.

Categories	Excellent =5	Good=4	Fair=3	Marginal =2	Unsatisfactory =1
Interaction with Group	Very good participation through shared participation and respect for others.	Good participation through shared participation and respect for others.	Somewhat participation appears interested but talks over team mates.	Minimal participation; Shows little interest.	No participation; sits on the sidelines with no interaction.
Laboratory Viva	Demonstrates good knowledge of both theory and experimental procedure.	Demonstrates good knowledge of either theory or experimental procedure.	Has a fair idea of both theory and experimental procedure?	Has some idea of experimental procedure.	Has no idea of the experiment at all.
Data Accumulation	Measurements, skills or techniques are good and accurate.	Measurements, skills or techniques are good.	Measurements, skills or techniques are somewhat inaccurate.	Demonstrate incompetence in measurements, skills or techniques.	Measurements, skills or techniques are incomplete and inaccurate.

Laboratory Report:

The lab report for each experiment in a week will be evaluated as per given rubrics.

Categories	Excellent =5	Good=4	Fair=3	Marginal =2	Unsatisfactory =1
Representation	The theory, apparatus, procedure is clearly stated along with proper sketch of the experimental setup.	Any three within theory, apparatus, procedure and proper sketch of the experimental setup is present.	Any two within theory, apparatus, procedure and proper sketch of the experimental setup is present.	Any three within theory, apparatus, procedure and proper sketch of the experimental setup is present and incomplete.	Any two within theory, apparatus, procedure and proper sketch of the experimental setup is present and incomplete.
Data Analysis and Calculation	Data is clearly represented and step wise necessary calculations are presented. If necessary, graph is plotted with proper labeling along with units.	Data is clearly represented but step wise necessary calculations are missing. If necessary, graph is plotted with proper labeling along with units.	Data is clearly represented and step wise necessary calculations are presented. If necessary, graph is plotted with proper labeling but units are missing.	Either data are incomplete or step wise calculations are missing or necessary graph is not correctly scaled and labeled.	Data, calculation and graph are incomplete.
Results and discussion	Include error calculation (accuracy of results) and a clear discussion of the results.	Error calculation is grossly inaccurate but a clear discussion of the results is present.	Either error calculation or discussion of the results is missing.	Error calculation is grossly inaccurate or discussion of the results is missing.	Neither error calculation nor discussion of the results is included.
Timely submission	Gets the completed note book with proper index corrected before performing the next practical.	Gets the completed note book without proper index corrected before performing the next practical.	Gets the completed note book with proper index corrected within two weeks from the performance of the experiment.	More or less meets the deadline.	Irregular.

Thus total evaluating marks is 350 for ten experiments.

The final evaluation of lab technique will be done in 95 marks.

B.Tech, 1st Year, 2nd Sem, 2019
Physics-I Laboratory (BS-P11-291) Evaluation Record Sheet

Name of the Student : Darshan Nath

Stream: FE

Roll No. : 27

Sub-Group: 6

Categories	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
	Exp. Name	Exp. Name	Exp. Name	Exp. Name	Exp. Name	Exp. Name	Exp. Name	Exp. Name	Exp. Name	Exp. Name
	<u>Young's</u>	<u>Lawce</u>	<u>Newberry</u>	<u>Dispersion</u>	<u>Carvey Fader</u>	<u>Static</u>	<u>Stefan's</u>	<u>Bandgap</u>	<u>Planck's</u>	<u>Goldberg</u>
	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:
	<u>18/1/19</u>	<u>07/02/19</u>	<u>01/2/19</u>	<u>08/2/19</u>	<u>15/2/19</u>	<u>01/3/19</u>	<u>15/3/19</u>	<u>12/4/19</u>		<u>30/4/19</u>
Total Marks:	35	35	35	35	35	35	35	35	35	35
Lab Technique	Interaction with Group	<u>05</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>		<u>5</u>
	Laboratory Viva	<u>5</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>3</u>	<u>5</u>	<u>4</u>	<u>5</u>	<u>5</u>
	Data Accumulation	<u>05</u>	<u>5</u>	<u>3</u>	<u>5</u>	<u>5</u>	<u>4</u>	<u>5</u>	<u>4</u>	<u>5</u>
Lab Report	Representation	<u>03</u>	<u>05</u>	<u>05</u>	<u>05</u>	<u>05</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
	Data Analysis and Calculation	<u>03</u>	<u>04</u>	<u>05</u>	<u>04</u>	<u>04</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
	Results and discussion	<u>05</u>	<u>04</u>	<u>05</u>	<u>04</u>	<u>04</u>	<u>4</u>	<u>4</u>	<u>5</u>	<u>5</u>
	Timely Submission	<u>05</u>	<u>05</u>	<u>5</u>	<u>5</u>	<u>05</u>	<u>5</u>	<u>5</u>	<u>4</u>	<u>5</u>
Marks obtained in each week	<u>31</u>	<u>32</u>	<u>32</u>	<u>32</u>	<u>31</u>	<u>31</u>	<u>31</u>	<u>31</u>		<u>33</u>
Total Marks (m) Out of 350	<u>284</u>									

• Total marks obtained in laboratory class (out of 95), $A = \frac{\dots (m)}{350} \times 95 = 77$

• Marks obtained in attendance (out of 5), $B = 0.5$

• Total Internal marks obtained including attendance (out of 100), $(A+B) = \frac{82}{100}$

33
AO

Signature of Faculty

marks

of attendance will be done at the end of the semester based on regularity, punctuality of the student

: 15 marks

ique for each experiment, each week, will be evaluated as in the rubrics given below

	Excellent =5	Good=4	Fair=3	Marginal =2	Unsatisfac
n	Very good participation through shared participation and respect for others.	Good participation through shared participation and respect for others.	Somewhat participation appears interested but talks over team mates.	Minimal participation Shows little interest	No participation the sidelines with interaction
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	Measurements, skills or techniques are good and accurate.	Measurements, skills or techniques are good.	Measurements, skills or techniques are somewhat inaccurate	Demonstrate incompitance in measurements, skills or techniques	Measurements, techniques are and has

ents, thus the total evaluating marks is 90. The final evaluation of lab technique will be done in 15 marks.

marks

or each experiment, each week, will be evaluated as in the rubrics given below

	Excellent =5	Good=4	Fair=3	Marginal =2	Unsatisfi
	The theory, apparatus, procedure is clearly stated along with proper sketch of the experimental setup.	Any three within theory, apparatus, procedure and proper sketch of the experimental setup is present	Any two within theory, apparatus, procedure and proper sketch of the experimental setup is present	Any three within theory, apparatus, procedure and proper sketch of the experimental setup is present and incomplete	Any two will apparatus, pr proper sketch experimental present and
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B.Tech 1st year 2nd sem 2018
Physics I (PH 291) Laboratory Evaluation

Record Sheet

Name: Simantika Saha
 Roll No: 34

Stream: EE
 Group: 6

Total Marks obtained in Attendance (5) at the end of the semester:

Categories		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Marks Obtained after the completion of six experiments	
		Expt. Name: <i>Determination of Modulus of Rigidity by Dynamic Method</i>	Expt. Name: <i>Use of Canny Posters Principle to determine the resistance</i>	Expt. Name: <i>Young's Modulus</i>	Expt. Name: <i>LASER diffraction</i>	Expt. Name: <i>Optical Fibre</i>	Expt. Name: <i>Lee's Method</i>		
		Expt. No: <u>PH-291-7</u>	Expt. No: <u>PH-291-4</u>	Expt. No: <u>PH-291-5</u>	Expt. No: <u>PH-291-11</u>	Expt. No: <u>PH-291-12</u>	Expt. No: <u>PH-291-2</u>		
		Date: <u>5/2/18</u>	Date: <u>9/2/18</u>	Date: <u>23/2/18</u>	Date: <u>23/3/18</u>	Date: <u>6/4/18</u>	Date: <u>25/4/18</u>		
		Total Marks: 35	Total Marks: 35	Total Marks: 35	Total Marks: 35	Total Marks: 35	Total Marks: 35		
Lab Technique (15)	Interaction with Group	<u>05</u>	<u>05</u>	<u>05</u>	<u>05</u>	<u>05</u>	<u>05</u>	Total Marks obtained in Lab Technique within a <u>30</u> total of 90 marks	Total evaluation of Lab Tech within 15 marks
	Procedure knowledge	<u>03</u>	<u>03</u>	<u>01+03</u> <i>Rishita</i>	<u>01+02</u> <i>Rishita</i>	<u>03</u>	<u>04</u>		
	Data Accumulation	<u>05</u>	<u>05</u>	<u>05</u>	<u>03+02</u> <i>Rishita</i>	<u>05</u>	<u>05</u>		
Lab Report (20)	Representation	<u>04</u>	<u>04</u>	<u>05</u>	<u>05</u>	<u>05</u>	<u>05</u>	Total Marks obtained in Lab Report within a total of 120 marks	Total evaluation of Lab Report within 20 marks
	Data Analysis & Calculation	<u>04</u>	<u>04</u>	<u>04</u>	<u>04</u>	<u>04</u>	<u>05</u>		
	Results and discussion	<u>04</u>	<u>03+02</u>	<u>04</u>	<u>03+02</u>	<u>05</u>	<u>02</u>		
	Timely Submission	<u>05</u>	<u>05</u>	<u>05</u>	<u>05</u>	<u>05</u>	<u>05</u>		

Total Internal Marks Obtained = $13 + (19) + 05 = 37/40$

Signature of Faculty: B. Saha
14/05

Roll no.	Student name	Quality of the business card (5 marks)	Articulation (5 marks)	Confidence & Body language (5 marks)	Total marks (15)	Remarks
	Aachal Agarwal ✓	4.5 4.75	4.5	4.5	13.75	Well begun/structured
	Abhijit Barman	3.5	3.5	3	10	Articulation improper but effort
	Avinet Mishra	4	4	4	12	Good overview but minor errors in language structure
	Abhirup Basu ✓	4.75	4.5	4	13.25	Good description of job profile
	Angkil Roy	3.5	2.5	2.5	8.5	Lang. skills to presentation skills missing/Good effort
	Aniket Bhadra ✓	4	4	4.75	12.75	Good description of job profile/ Grammatical usage
	Anubhav Singh ✓	4	4.75	4	12.75	Well introduced
	Archiman Sen ✓	4.5	5 4.75	4.5	14	Well structured and well presented/ Very good
	Aryan Sharma	4	4.5	3.5	12	Confidence missing/ rest fine
	Ashutosh Rai	4	3.5	3.5	11	Not structured but good attempt.
	Avinash Giri ✓	4.5	4.5	4	13	Well structured.
	Aishek Barwal	4	3.5	3.5	11	Structured but not proper articulation
	Pikram Ghosh ✓	4.5	4.5	4.5	13.5	Confident and well structured presentation but card content has been altered
	Pikramjit Saha	4	4	4	12	Well structured and good presentation
	Chandan Sahu	4	3.5	3.5	11	Good improvement
	Abhik Sambadhiroy ✓	4.5	4.5	4.5	13.5	Well begun/ well structured and to the point
	Golan Gense	4	2.5	3.5	10	canal but confident
	Arthik Jaiswal	3.5	3.5	3.5	10.5	Good effort
	Krishnendu Dali	4	3	3	11	Good effort
	Kunal Palit ✓	4.5	4.5	4.5	13.5	Well introduced, well presented
	Madhusudan Anand	4.5	3.5	3.5	11.5	Good effort
	Mayank Raj Muradkhan	4.5	3	3	10.5	Good effort
	Mayuri Ghosh	3	3.5	3.5	10	Good effort
	Nilaya Das	4	4.5	4	12.5	well structured
	Parsha Goswami Chakrabarty ✓	4.5	4.5	4.5	13.5	well structure & well presented
	Aashish K. Agarwal	4	4.75	4	12.75	Presentable, low in voice
	Harish Agarwal	4.5	4	4	12.5	well beginning, but profile was missing
	Chiranjit Ghosh	4	3.5	4	11.5	good effort/ lacks in confidence/entry level
	Abhinandan Bhattacharjee	4	4.5	3.5	11.5	voice is low but articulation good
	Aman Sharma	4	4	4	12	presentable/ confident but lacks confidence
	Manpiya Roy	4.5	4.5	3.5	12.5	Presentable but nervous excellent technical structure

(Signature)
24/01/19

Language Laboratory (HM-HU291)
Assessment Sheet (CIVIL- 2nd semester 2019)
Assessment II: Public speaking (How to introduce an eminent person)

Date: 07/02/19

Roll no.	Student name	Subject matter (4)	Present ation skills (4)	Team partici pation (3)	Volume (2)	Time manag ement (2)	Total Marks (15) marks	Remarks
52	Asif Iqbal	3.5	4	2.5	2	2	14	Introduction to Interviewed Excellent
36	Surojit Biswas	3.5	3	2.5	2	2	13	Very good effort
51	Brigabihari Bae	2.5	2.5	2.5	1.5	2	11	need to improve
48	Love Disha							Made Questionaire (absent)
45	Pradyut Roy							absent
47	Manab Roy							absent
41	Shivam Kumar	2.5	2.5	2.5	1.5	2	11	need to improve confidence
40	Shubham Naha	2.5	2.5	2.5	1.5	2	11	"
46	Prateeksha Pradhan	3	3.5	2	2	2	12.5	Introduction to Good
39	Amindya Mahapatra	3	2.5	2	2	2	11.5	Interviewee (reading the script) Interviewed (absent)
42	Rishu Biswas							
5	Ajay Kumar	3	3	2	2	2	12	Introduction
35	Swabaj Biswas	2.5	2.5	2.5	2	2	11.5	Interviewee/ but need to improve
39	Sachintha Roy	2.5	2.5	2	2	2	11	need to improve
43	Rajdeep Ghosh	2.5	2.5	2	2	2	11	need to improve
49	Dipan Nath							Interviewed but absent
50	Digvijay Saha							Interviewed but absent

Manab
07/02/19