


**GOVERNMENT POLYTECHNIC, JAJPUR**

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Discipline: Civil/ Mechanical/ Mining	Semester: 2nd	Name of the Teaching faculty: TUSHAR RANJAN MOHANTA, Sr. Lect. (Chemistry)
Subject: Applied Chemistry	No of Days/Week Class allotted: 2	From Date: 9.01.2026 to Date: 8.05.2026 No. of weeks :15
Week	Class Day	Topic
1st	1st	Expt 1: Preparation of standard solution of oxalic acid of potassium permanganate solution.
	2nd	Theory, procedure and working.
2nd	1st	student sessional Assessment.
	2nd	Expt 2: Determination of strength of NaOH Solution.
3rd	1st	Theory and procedure, Demonstration and working with tabulation and calculation and results.
	2nd	student sessional Assessment.
4th	1st	Expt 3: Standardisation of potassium Permanganate solution and determination of percentage of haematite ore.
	2nd	Theory and procedure, Demonstration and working with tabulation and calculation and results.
5th	1st	student sessional Assessment.
	2nd	Expt 4: Iodometric estimation of Copper in copper pyrite ore
6th	1st	Theory and procedure, Demonstration and working with tabulation and calculation and results.
	2nd	student sessional Assessment.
7th	1st	Expt 5: Determination of TAN of given oil
	2nd	Theory and procedure, Demonstration and working with tabulation and calculation and results.
8th	1st	student sessional Assessment.
	2nd	Expt 6(A): Estimation of hardness of water using EDTA solution. Expt 6(B): Determination of alkalinity of a given water sample using 0.01M Sulphuric acid.
9th	1st	Theory and procedure, Demonstration and working with tabulation and calculation and results.
	2nd	student sessional Assessment.
10th	1st	Expt 7: Gravimetric analysis of the moisture and ash contents in a Coal sample.
	2nd	Theory and procedure, Demonstration and working with tabulation and calculation and results.
11th	1st	student sessional Assessment.
	2nd	Expt 8: Determination of conductivity of given water sample.
12th	1st	Theory and procedure, Demonstration and working with tabulation and calculation and results.
	2nd	student sessional Assessment.
13th	1st	Expt 13: Verification of Faraday's 1st law. of electrolysis of copper sulphate using Cu electrode.
	2nd	Theory and procedure, Demonstration and working with tabulation and calculation and results.
14th	1st	student sessional Assessment.
	2nd	Expt 15: Determination of the effect of two dissimilar metals immersed in solution.
15th	1st	Theory and procedure, Demonstration and working with tabulation and calculation and results.
	2nd	student sessional Assessment.

  
 Signature of Faculty  
 (T.R. Mohanta)  
 Sr Lect. (Chemistry)