



बिरसा मुंडा ट्रायबल युनिवर्सिटी Birsā Munda Tribal University

राजपिपला, जि० नर्मदा Rajpipla, Dist. Narmda

Established by Tribal Development Department, Govt. of Gujarat

School of Science

M.Sc. (Chemistry) Programme

Subject Code & Name: - MS01CCHE03 & Practicals

Teaching and Evaluation Scheme:

Teaching Scheme				Examination Scheme			
Credits				Component Weightage			
				Internal		External	
L	T	P	Total	TH	PWE	TH	PWE
-	-	4	4	-	50	-	50

Programme Name	M.Sc. Chemistry
Semester	I
Course Code	MS01CCHE03
Course Title	Practicals
Course Content Type (Th./Pr.)	Practical
Course Credit	4
Sessions+ Lab. Per Week	4
Total Teaching/Lab. Hours	60 Hours
* 2 Laboratory = 1 Session	

ORGANIC CHEMISTRY

Sr. No.	List of Synthesis
1.	Qualitative analysis of given ternary mixture of organic compounds., (Minimum 10 combinations comprises acids (Water soluble), phenols, bases and neutral compounds)

Basic Text & Reference Books:-

1. Elementary Practical Organic Chemistry (Part 1-3) By A. I. Vogel (CBS publications)



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School of Science

M.Sc. (Chemistry) Programme PHYSICAL CHEMISTRY

Sr. No.	(Physical- I)
1.	To determine the heat of solution of the given acid by solubility method
2.	Determination of hydrolysis constant of aniline hydrochloride by distribution method
3.	Determination of the critical solution temperature (CST) of the phenol/water system and to study the effect of additive on CST
4.	To determine the surface tension of methyl acetate, ethyl acetate, hexane and chloroform and hence calculate the atomic parachors of C, H, Cl etc
5.	To determine partial molar volume of sodium chloride in aqueous solution at room temperature

Basic Text & Reference Books:-

1. Experimental Physical Chemistry by R. C. Das & B. Behera, (Tata McGraw hill Publishing Company Ltd., New Delhi)
2. A Laboratory Manual of Experiments in Physical Chemistry by D. Brennan and C. F. H. Tipper, (McGraw hill Publishing Company Ltd., London)
3. Systematic Experimental Physical Chemistry by S. W. Rajbhoj and T. K. Chondhekar, (Anjali Publication, Aurangabad)
4. Advanced Practical Physical Chemistry by J. B. Yadav, (Goel Publishing House, Meerut)
5. Experimental Physical Chemistry by G. Peter Matthews, (Clarendon Press, Oxford, London)
6. Experimental Physical Chemistry by V. D. Athawale and Parul Mathur, (New Age International Publishers, New Delhi)
7. Advanced Physical Chemistry Experiments by Gurtu and Gurtu, (Pragati Prakashan, Meerut)
8. Advanced Physico-Chemical Experiments by J. Rose, (Sir Isaac Pitman & Sons Ltd., London)
9. Experiments in Physical Chemistry by D. P. Shoemaker, C. W. Garland and J. W.

L:: Lecture, **T::** Tutorial , **P::** Practical

(PWE:: Practical Work Examination)

(PWE includes Laboratory practical work, project work, viva simulation exercise work etc.)