PARVATHANENI BRAHMAYYA
SIDDHARTHA COLLEGE OF ARTS & SCIENCE
Autonomous
Siddhartha Nagar, Vijayawada–520010
Re-accredited at 'A+' by the NAAC

23CHMIP121: Qualitative Analysis of Simple Salt

Offered to: All UG Programs **Course Type:** Minor 1 (Core -Practical)

Year of Introduction: 2023-24 **Year of offering: 2023 - 2024**

Semester: II 30 Hrs **Credits: 1**

I. Course outcomes:

At the end of the course, the student will be able to;

Course Outcome NO	Outcome	Mapping to
CO1	Remember the basic concepts of qualitative analysis of inorganic simple salt	PO6
CO2	Understand the use of glassware, equipment and chemicals and follow experimental procedures in the laboratory.	PO7
CO3	Apply the concepts of common ion effect, solubility product and concepts related to qualitative analysis	PO7
CO4	Analyse the salt mixture in to cations and anions	PO6
CO5	Create awareness on different cations and anions	PO7

CO-PO MATRIX								
23CHMIP121	**CO-PO**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**
	CO1						M	
	CO2							H
	CO3							H
	CO4						M	
	CO5							M

II. Laboratory course syllabus: Analysis of SIMPLE SALT (35+15) M

Analysis of simple salt containing ONE anion and ONE cation from the following:
Anions: Carbonate, Sulphate, Chloride, Bromide, Acetate, Nitrate, Borate, Phosphate. Cations: Lead, Copper, Iron, Aluminium, Zinc, Nickel, Manganese, Calcium, Strontium, Barium, Magnesium and Ammonium.

Co-curricular activities and Assessment Methods

1. Continuous Evaluation: Monitoring the progress of student's learning.

2. Class Tests, Work sheets and Quizzes

3. Presentations, Projects and Assignments and Group Discussions: Enhances critical thinking skills and personality

4. SEMESTER -End Examination: critical indicator of student's learning and teaching methods adopted by teachers throughout the SEMESTER.

TEXT BOOK:

1. Salt analysis by Dr. souradh muktibooh.

Reference books:

1. Vogel's Quanlitative Inorganic Analysis, Seventh edition, Pearson.

QUESTION PAPER PATTERN FOR CORE LAB COURSES

(A) SEE (LAB) Model Question Paper

23CHMIP121: Offered to: All UG Programs

Max.Marks: 35 Max.Time: 3Hours

Pass. Min: 14

I. **Answer the following. Max. Marks: 30**

Q1. PRILIMINARY TESTS

Q2 DRY TESTS

Q3 WET TESTS

Q4 CONFORMATION OF CATION

Q5 REPORT

II Viva 3 Marks

III Record 2 Marks

(B) CONTINUOUS ASSESMENT: 15 MARKS

TOTAL : (A)+(B) = 50MARKS

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23CHVAP101: ORGANIC SYNTHESIS AND VOLUMETRIC ANALYSIS IN CHEMISTRY LAB

Offered to: All UG Programs **Course Type:** VAC (P)

Year of Introduction: 2023-24 **Year of offering: 2023 - 2024**

Semester: II 45Hrs **Credits: 2**

Course outcomes:

At the end of the course, the student will be able to;

Course Outcome NO	Outcome	Mapping to
CO1	Remember the basic concepts of quantitative analysis and volumetric analysis.	PO1
CO2	Understand the use of glassware, equipment and chemicals and follow experimental procedures in the laboratory	PO6
CO3	Apply the concepts and principle , concepts related to quantitative analysis and organic preparations.	PO7
CO4	Analyse the concepts theory involved in Quantitative Analysis	P06
CO5	Create awareness on methods used in Quantitative Analysis and organic preparations	P06

CO-PO MATRIX							
CO-PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**
CO1	M						
CO2						L	
CO3							M
CO4						M	
CO5						H	

syllabus

1) Determination of copper (cu^{+2}) by using EDTA
2) Determination of Nickel (Ni^{+2}) by using EDTA
3) Determination of Chloride by using Volhardmethod
4) Determination of Iodine value of an oil sample.
5) Determination of soponification value of an oil sample.
6) Determination of acid value of an oil sample.
7) Preparation of parabromo acetanilide from acetanilide.
8) Estimation of ascorbic acid from different fruit sample

Question Paper Pattern for VAC Practical Course

SEE (LAB) Model Question Paper

23CHVAP101: ORGANIC SYNTHESIS AND VOLUMETRIC ANALYSIS IN CHEMISTRY LAB

Offered to: All UG Programs

Max. Marks: 50 **Max. Time: 3Hrs**

Pass. Min: 20

(A) Evaluation Procedure **35 Marks**

1. EXPERIMENTAL PROCEDURE		10M
2. EXPERIMENT		15M
3. RESULT		5M
4. VIVA	5 M	

(B) CONTINUOUS ASSESMENT(Internal) **15 MARKS**

15 marks for the continuous assessment (Day to day work in the laboratory shall be evaluated for 15 marks by the concerned laboratory teacher based on the regularity/ record/viva). Laboratory teachers are mandated to ensure that every student completes 80%-90% of the lab assessments.

TOTAL: (A)+(B) = **50 MARKS**

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