

Government of Karnataka
Commissionerate of Pre-University Education
I PUC Chemistry Practicals

EXPERIMENTS FOR CHEMISTRY PRACTICAL EXAMINATION

Time: 2 Hrs.

Total Marks: 30

Q-I	Salt analysis Analyse the given simple inorganic salt systematically and report one acid radical and one basic radical.	10 marks
Q-II	Titration (volumetric analysis) Determination of the concentration (strength) of given NaOH solution by titrating against standard oxalic acid. OR Determination of the concentration (strength) of given HCl solution by titrating against standard solution of sodium carbonate. (procedure of the titration should be given).	10 marks
Q-III	Viva on any of the two the following experiments only (ask four simple questions each carrying one mark) i) Bunsen burner ii) pH experiments iii) Equilibrium experiment ($\text{Fe}^{3+} + \text{SCN}^- \rightleftharpoons [\text{Fe}(\text{SCN})_3]^{2+}$) iv) Purification techniques	4 marks
Q-IV	Submission of the duly completed and certified record	6 marks
	TOTAL	30 marks

SCHEME OF VALUATION

Time: 2 Hrs.

Total

Marks: 30

Q-I	Salt analysis (10 Marks) i) Preliminary tests (any two correct) 1 ii) Detection of Acid radical (4 Marks) Group detection (correct group identification – 1 mark correct radical identification – 1 mark) 2 Confirmatory test 2 iii) Detection of Basic radical (4 Marks) Group detection (correct group identification – 1 mark correct radical identification – 1 mark) 2 Confirmatory test 2 For writing systematic procedure with absence of previous groups 1	
Q-II	Titration (10 Marks) i) For performing the experiment 3 For recording the readings in the tabular column 1	

	ii) For accuracy of the Titre value up to ± 0.3 mL error 3 marks ± 0.4 mL error 2 marks ± 0.5 mL 1 mark ≥ 0.6 mL 0 mark * If a student reports abnormal error, the examiner may conduct the titration and assess the reading iii) Calculation of Molarity (3 marks) a. Formula 1 mark b. Substitution and answer (1+1) 2 marks	3																					
Q-III	Viva: four simple questions from any two of the experiments mentioned above each carrying 1 mark ---- 1 x 4	4 marks																					
IV	Record Submission of the duly completed and certified record	6 marks																					
	<table border="1"> <thead> <tr> <th>Sl.No</th> <th>% of experiments performed and recorded</th> <th>Maximum marks to be awarded</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>$\geq 91\%$</td> <td>6</td> </tr> <tr> <td>2</td> <td>$\geq 81\%$ to 90%</td> <td>5</td> </tr> <tr> <td>3</td> <td>$\geq 71\%$ to 80%</td> <td>4</td> </tr> <tr> <td>4</td> <td>Between 41% and 70%</td> <td>3</td> </tr> <tr> <td>5</td> <td>40% & below 40%</td> <td>0</td> </tr> <tr> <td colspan="2" style="text-align: right;">TOTAL</td> <td>30</td> </tr> </tbody> </table>	Sl.No	% of experiments performed and recorded	Maximum marks to be awarded	1	$\geq 91\%$	6	2	$\geq 81\%$ to 90%	5	3	$\geq 71\%$ to 80%	4	4	Between 41% and 70%	3	5	40% & below 40%	0	TOTAL		30	30 marks
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TOTAL		30																					

Note:

- a) The **following salts** are **suggested** to be given for analysis for practical examination: **NH₄Br, Al₂(SO₄)₃, CaCO₃, BaCl₂, MgSO₄.**
- b) **Inorganic salts** other than the mentioned above but given in the prescribed manual can be given to students in regular practical classes for practice.
- c) All experiments as mentioned in the I PUC practical manual published by **Commissionerate of Pre-University Education** are to be conducted and recorded.