

(B.Sc.Semester-7)

Inorganic Qualitative Analysis**COURSE CODE: SC23PMJDSCCHE701****Subject: Chemistry****Practical No-****Date:.....****[A] Preliminary Test**

No	Test	Observation	Inferences
1	State	Crystalline \ Amorphous	
2	Colour of Mixture		
3	Solubility of Mix in dil. HCl or DW		

[B] Dry Test for Positive and Negative Radicals

No	Test	Observation	Inferences
1	Heating in dry Test Tube		
2	Flame test (Li, K, Na, Cu, BO_3^{3-})		
3	Sub + NaOH Heat (NH_4^+)		

No	Test	Observation	Inferences
1	Mix +dil. HCl (CO_3^{2-} ; NO_2^-)		
2	Mix + Con. H_2SO_4		
3	Mix + MnO_2 + Con. H_2SO_4 (Cl^- ; Br^- ; I^- ; NO_3^-)		
4	Borate Test (BO_3^{3-})		
5	Acid extract + excess con. HNO_3 +Ammonium molibledam (PO_4^{3-})		

[C] Water Extract Test.

No	Test	Observation	Inferences
1	W.E.+ Zinc Urenylacetate.(Na)		
2	W.E.+ Picric Acid (K^{+1})		
3	W.E.(Yellow)+HCl + H_2S (CrO_4^{2-})		

Result from the Dry Test and W.E. test.	
Positive Radical :	Negative Radical:

[D] Wet Test

(a) Wet Test for Positive Radical

(i) Preparation of Original Solution:

(ii) Group Separation for Positive Radical

No	Test	Observation	Inferences
1	O.S.+ HCl (1 st group) (Ag^{+1} ; Hg^{+1} ; Pb^{+1}) & (Tl; W)		
2	O.S.+ HCl + $\text{H}_2\text{S}(\text{g})$ (2 nd group) (Cu^{+2} , Bi^{+2} , Cd^{+2} , Sn^{+2} , Sb^{+2} , As^{+2}) (Se; Te; Mo)	,	
3	5 th B- group (NH_4^{+1} , Na^{+1} , K^{+1}) & Li^{+1}		

(ii) _____ Group Classification.

No	Test	Observation	Inferences

(iii) _____ Group Classification.

No	Test	Observation	Inferences

(iv) Confirmative Test for Radical.

No	Test	Observation	Inferences

[E] Result Table

Positive Radical	Negative Radical