

Faculty of Science
B.Sc. I Semester (Practical) Examination
Subject: Chemistry; Paper I
QUESTION BANK
With Effect from 2019

Time: 3 hrs

Max. marks: 50

- I. Write the systematic procedure for the analysis of the following anion and cation (with reactions). (5 + 5 = 10)

Q.No.	Cation ; Anion
1	Pb^{2+} ; Cl^-
2	NH_4^+ ; NO_3^-
3	Al^{3+} ; CHCOO^-
4	NH_4^+ ; PO_3^{4-}
5	Bi^{3+} ; NO_3^-
6	Mg^{2+} ; SO_4^{2-}
7	Ca^{2+} ; CO_3^{2-}
8	Sr^{2+} ; CHCOO^-
9	Ba^{2+} ; BO_3^{3-}
10	Cd^{2+} ; I^-
11	Zn^{2+} ; CO_3^{2-}
12	Mn^{2+} ; Br^-
13	Fe^{3+} ; CO_3^{2-}
14	Sb^{2+} ; S^{2-}
15	Pb^{2+} ; NO_3^-

P.T.O.

- II. Analyze the given mixture using Semi-micro qualitative technique systematically and report **two anions and two cations** present in it. (8+12=20)

Q.No.	Salt mixture	
1	(NH ₄) ₃ PO ₄	+ CdAc ₂
2	AlCl ₃	+ Ba(NO ₃) ₂
3	Sr(NO ₃) ₂	+ MgCO ₃
4	CaSO ₄	+ NH ₄ I
5	CdCl ₂	+ (NH ₄) ₃ PO ₄
6	PbAc ₂	+ NH ₄ Cl
7	Fe ₂ (SO ₄) ₃	+ NH ₄ Cl
8	Bi(NO ₃) ₃	+ Al ₂ (SO ₄) ₃
9	NH ₄ Br	+ CaCO ₃
10	Al ₂ (SO ₄) ₃	+ ZnCl ₂
11	MgSO ₄	+ (NH ₄) ₂ CO ₃
12	Ba(NO ₃) ₂	+ MgI ₂
13	ZnCl ₂	+ BaAc ₂
14	CaCO ₃	+ Mg(NO ₃) ₂
15	ZnCl ₂	+ NH ₄ Ac

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SCHEME OF VALUATION
(Max. marks 50)

I.	Procedures (5+5)	---	10 marks
II.	Solubility of anions	---	2 marks
	Solubility of cations	---	2 marks
	Flame test	---	2 marks
	2 anions (2 x 4)	---	8 marks
	2 cations (2 x 6)	---	12 marks
	Group separation table	---	2 marks
	Report	---	2 marks
III.	Record and Viva voce	---	10 marks

Vetulaee

Vitling