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PAGE NO. 121(CHAPTER-9 CHEMISTRY PRACTICALS) Q4. How would you distinguish between the following: a)Calcium nitrate and lead nitrate using ammonium hydroxide Ans: Add ammonium hydroxide to the given substance, calcium nitrate does not form any ppt. with ammonium hydroxide. But lead nitrate forms chalky white ppt. With ammonium hydroxide b)Calcium nitrate and lead nitrate using sodium hydroxide solution Ans: Add sodium hydroxide to the given substance, Calcium nitrate forms milky white ppt. which is insoluble in excess. Lead nitrate forms chalky white ppt. Which is soluble in excess. c)Zinc nitrate and lead nitrate using ammonium hydroxide solution Ans: Add ammonium hydroxide solution to the given substance Zinc nitrate forms gelatinous white ppt. which is soluble in excess. But lead nitrate forms chalky white ppt. With ammonium hydroxide which is in soluble in excess. Q5. Give a chemical test to distinguish between the following a)Sodium carbonate (Na2CO3) &Sodium sulphite (Na2SO3) using dil. HCl Ans: Sodium carbonate forms CO2 gas with dil. HCl, it turns lime water milky but no effect on K2Cr2O7 (potassium dichromate) paper. Sodium sulphite forms SO2 gas which turns lime water milky and also turns K2Cr2O7 (potassium dichromate) paper from orange to green. b)Sodium sulphite (Na2SO3)&Sodium sulphide (Na2S) using dil. HCl Ans: Sodium sulphite forms SO2 gas with dil HCl, which turns lime water milky and also turns K2Cr2O7 (potassium dichromate) paper from orange to green. Sodium sulphide forms H2S gas with rotten egg smell and also turns lead acetate paper silvery black. c)Sodium sulphide (Na2S)& Sodium sulphate (Na2SO4) using barium chloride(BaCl2) Ans: Sodium sulphate (Na2SO4) forms white ppt. with barium chloride (BaCl2), Sodium sulphide (Na2S) does not form any ppt. with barium chloride(BaCl2) d)Sodium chloride (NaCl)&Sodium nitrate

(NaNO3) using conc. Sulphuric acid Ans: Sodium chloride (NaCl) forms HCl gas with conc. Sulphuric acid and it produces dense white fumes when a glass rod dipped in ammonia is placed over it. Sodium nitrate (NaNO3) produces reddish fumes of NO2 with conc. Sulphuric acid and turns potassium (KI) paper brown.