KRISHNAGAR ACADEMY

Half Yearly Examinations Phase II
Class: X
Subject: Chemistry

FM 50

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1. Carry out the following conversions by giving balanced chemical equation: (1x10=10)

a. Lead carbonate to lead sulphate

b. A soluble chloride to an insoluble chloride

c. sulphur to sulphuric acid

d. An insoluble salt to a soluble salt

e. An alkali to an insoluble base

f. Ammonia to nitrogen

g.Ammonia to urea

h. Ammoniun nitrate to laughing gas

i. Ammonia to washing soda

j. Ammonium chloride to ammonia

2. Distinguish between the following pair of compounds by a good chemical test: (1x5)

a. Zinc salt and Lead salt

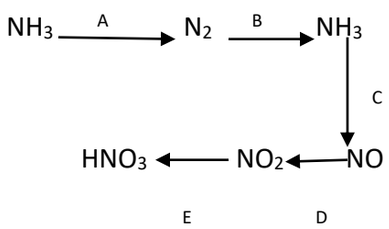
b.Ferrous salt and Ferric salt

c.Ammonium hydroxide and sodium hydroxide solution

d. Calcium salt and cupric salt

e.Ammonia gas and Nitrogen gas

3. Carry out the conversions: (1x5=5)



4. State proper observations : (1x5)

a. Ammonia gas is passed over heated cupric oxide

b.Ammonia gas reacts with excess chlorine gas

c. Aluminium nitride reacts with warm water

d. Sodium hydroxide is reacted with calcium chloride

e.Ammonia gas burns in oxygen

5. Explain : (1x10)

a. During Haber's Process high pressure is required.

b. Ammonia gas is basic in nature.

c. Fountain experiment proves the solubility of ammonia in water.

d. All alkalis are bases but the reverse is not true.

e. On passing ammonia solution dropwise to copper sulphate solution a pale blue ppt is formed which produces a deep blue solution on adding excess reagent.

f. Liquid ammonia can be used as a cooling agent.

g. H_3PO_3 is a dibasic acid.

h. Ammonia has a huge application in medical field.

i. During Haber's process finely divided iron is used as a positive catalyst.

j. A dilute solution of hydrochloric acid is stronger than the concentrated solution of acetic acid.

6. Name the following : (1x5=5)

a) A salt of ammonia used in dry cell.
b) An insoluble chloride which dissolves in hot water.
c) An acidic salt.
d) The reagent which can be used to identify Zn^{2+} ion.
e) A coloured gas that can be used as a bleaching agent.

7. Define the following : (1x5)

a) Universal indicator.
b) Ph
c) Tetrabasic acid
d) Acidity of a base
e) Dessicator.

8. Give balanced equation : (1x5)

a) Zinc hydroxide is treated with caustic potash solution.
b) Aluminium oxide is reacted with sodium hydroxide solution.
c) Lead oxide is dissolved in caustic potash solution.
d) Catalytic oxidation of ammonia .
e) Lead oxide is reduced by ammonia gas.