

STEPPING STONE
SCHOOL (HIGH)

CLASS – X

Subject : CHEMISTRY

Date :

28/04/2020;

Topic : Answers to

29/04/2020;30/04/2020

Worksheet

12/05/2020;18/05/2020

19/05/2020.

Answers to Worksheet No.:1

Date : 28/04/2020

1. i) He; Ne; Ar.
ii) K; Na; Li.
iii) Li; Na; K.
2. a) Helium.
b) Halogens.
c) Helium.
e) Sodium.
3. a) Pb – others are belonging to halogen family.
b) Mg – Belongs to third period.
4. a) Cations are formed by losing electrons from the valance shell hence the no. of shells are less than that of the atom hence smaller in size the nuclear charge also increases & size decreases.
b) Noble gas have zero electron affinity because their octet is complete & they have stable electronic configuration therefore they cannot accept electrons.
5. Given in book.
6. i) 5.
ii) 3.
iii) Phosphorus.

- iv) Non-metal.
- v) 3 period – Group 15.

7. i) 15.
ii) 8.
iii) 19.
iv) 6.

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Answers to Worksheet No.:2

Date :29/04/2020

1. i) Metal.
ii) Non metal.
iii) 3.
iv) 7.
v) Electrovalent AB_3 .
2. Refer your book.
3. i) HCl forms ions when dissolved in water CCL_4 do not form ions when dissolved in water.
ii) In molten or aqueous state the ions are free so they conduct electricity.
4. Refer your book.
5. i) NaCl / HCl.
ii) NH_3 .
iii) CH_4 .
iv) Br_2 .
6. Lone pair of electrons – electrons which are left alone without sharing.
Bond pair of electrons – electrons that get shared & form bonds.

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Answers to Worksheet No.:3

Date :30/04/2020

1. a) Copper hydroxide/ Zinc hydroxide.
b) NaOH / KOH.
c) Na⁺ / K⁺.
d) PbO.
e) Hydrogen.
2. i) $\text{Pb} + 2\text{NaOH} \rightarrow \text{Na}_2\text{PbO}_2 + \text{H}_2$.
ii) $\text{ZnO} + 2\text{NaOH} \rightarrow \text{Na}_2\text{ZnO}_2 + \text{H}_2\text{O}$.
iii) $2\text{Al} + 2\text{KOH} + 2\text{H}_2\text{O} \rightarrow 2\text{KAlO}_2 + 3\text{H}_2$.
3. Ammonium hydroxide - soluble in excess.
Sodium hydroxide - insoluble in excess.
4. a) White precipitate which is soluble in NaOH.
b) Insoluble reddish brown precipitate.
c) Inky blue solution which is soluble.
e) Produce colorless gas having pungent irritating odour which gives dense white fumes with conc. HCl & turns nessler's reagent brown.
5. Fe²⁺ / Fe³⁺ / Cu²⁺.
6. Al₂O₃ / ZnO / PbO.

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Answers to Worksheet No.:4

Date :12/05/2020

- 1) a) $\text{Pb}(\text{NO}_3)_2 + \text{H}_2\text{SO}_4 = \text{PbSO}_4 + 2\text{HNO}_3$
b) $\text{Cu} + 2\text{H}_2\text{SO}_4 = \text{CuSO}_4 + 2\text{H}_2\text{O} + \text{SO}_2$
c) $\text{Pb}(\text{NO}_3)_2 + 2\text{NaCl} = \text{PbCl}_2 + 2\text{NaNO}_3$
d) $2\text{NH}_3 + \text{H}_2\text{SO}_4 = (\text{NH}_4)_2\text{SO}_4$
e) $\text{Na}_2\text{CO}_3 + 2\text{HCl} = 2\text{NaCl} + \text{H}_2\text{O} + \text{CO}_2$

- 2) a) It gets decolourised.
b) It turns red or pink.
c) It turns red.

- 3) a) Alkali b) Precipitate c) Weak acid

4) Aqueous solution of HCl is acidic in nature and it turns blue litmus red, it also gives hydronium ions as the only positively charged particles in the solution whereas aqueous solution of ammonia is basic in nature, it turns red litmus blue, it gives hydroxyl ions as the only negatively charged particles.

- 5) a) Sodium hydrogen carbonate.

- b) Sodium carbonate.
- c) Copper carbonate.
- d) Potassium nitrate.
- e) Ammonium nitrate.
- f) Lead nitrate.

6) Refer the book.

- 7) a) P
b) R
c) Q

- 8) a) Neutralisation
b) Precipitation
c) Decomposition of carbonates by acids
d) Simple displacement

9) a) Hydrated copper sulphate, on heating changes from blue to white and the crystalline form changes to amorphous powder.

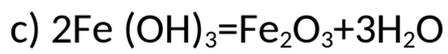
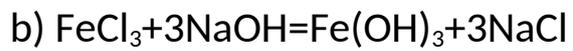
b) Lead nitrate, on heating decrepitates, melts to give a reddish brown coloured gas which turns freshly prepared acidified ferrous sulphate solution brown black. A residue is left behind which is reddish brown when hot and light yellow when cold.

c) It absorbs moisture from the atmosphere and gets converted into its solution.

d) Copper carbonate, on heating gives a colourless and odourless gas which turns lime water milky, a residue is left behind which is black colored.

e) Bluish white precipitate is formed which is insoluble in excess of sodium hydroxide.

10) a) $2\text{Fe} + 3\text{Cl}_2 = 2\text{FeCl}_3$



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***Answers to
Worksheet
No.:5***

Date :18/05/2020

Refer the notes the answers are there itself.

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