

Name.....

Date: 29 – 04 – 2020

Chemistry: -2nd Year Test # 1 Time: -20min.....

Marks 17

- Which one periodic property of elements remains same in the period of periodic table?
(a) ionization energy (b) shielding effect (c) oxidation state (d) electron affinity
- Which one group of elements will form amphoteric oxide?
(a) Be, Zn, Al, Pb (b) Ba, Zn, Al, P (c) Be, Sn, Al, S (d) Be, Zn, Mg, Pb
- Metal oxides and non-metal oxides react with one another to give
(a) acidic oxides (b) basic oxides (c) amphoteric oxides (d) salts
- Melting and boiling point of halogens _____ down the group.
(a) increase (b) decrease (c) remain same (d) show irregular trend
- The family name of I – B group elements is
(a) alkaline earth metals (b) alkaline earth metals (c) halogens (d) coinage metals
- Keeping in view the sizes of atoms, which order is the correct one
(a) Mg > Sr (b) Mg > Na (c) I > Cl (d) Al > Mg
- The oxide of Chlorine are: (a) Acidic (b) Basic (c) Amphoteric (d) none of these
- Diaspore is a mineral of (a) Aluminum (b) Boron (c) Chromium (d) potassium
- The solubility of orthoboric acid at 40°C is (a) 3% w/w (b) 37% w/w (c) 2.6% w/w (d) 99.3% w/w
- Boric Acid can not be used (a) As a flux (b) As an antiseptic (c) For washing eyes (d) for enamels & glazes
- How much number of electrons are shared by Carbon in CO (a) One (b) Two (c) Three (d) Four
- The bottom element of the group IVA is (a) Metal (b) non – metal (c) metalloid (d) gas
- The s – inert pair effect is most markedly shown (a) Silicon (b) germanium (c) carbon (d) lead
- Dehydration of methanoic acid with conc. H₂SO₄ produces a gas (a) ethene (b) methane (c) carbon monoxide (d) none
- The chemical formula of galena is (a) CdS (b) PbS (c) Sb₂S₃ (d) HgS
- Phosphorous acid with Zinc dust and hydrochloric acid produces (a) PH₃ (b) H₃PO₃ (c) P₂O₅ (d) H₃PO₄
- When steam is passed through boiling Sulphur it forms
(a) H₂S & SO₂ (b) H₂S & SO₃ (c) H₂O & SO₂ (d) H₂O & SO₃

Chemistry - Class: - 2nd Year

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(Subjective)

Section- II

Give short answers of all questions

Time: 3hrs:10min

22 x 2 = 44

questions

8x2 = 16

- Mention improvements in the Mendeleev's periodic table.
- What is lanthanide contraction?
- Why the 2nd value of electron affinity is with +ive sign?
- Give the periodic trend in metallic and non metallic character.
- What are silicones?
- Give equations to represent the reaction when borax is heated with cobalt oxide.
- What are the groups and periods?
- Why is there a big difference between basicity of orthoboric acid and orthophosphoric acid?

Q. No 3. Attempt all questions

8x2 = 16

- Write the chemical formulas of Sylvite & Talc.
- Give the usefulness of Potassium superoxide.
- Write down the balanced chemical equations of the hydrolysis of lithium and sodium hydrides.
- What is s – inert pair effect?
- Why the carbonate of lithium gets thermally decomposed but that of potassium not?
- Discuss the heating effect on boric acid.
- What are milk of lime and milk of magnesia? Give their importance
- Why is CO₂ a gas at room temperature while SiO₂ a solid?

Q. No 4 Attempt all questions

6x2 = 12

- Write physical properties of Nitric acid.
- How is nitrous acid prepared?
- Why are the first two elements of the VA group elements nonmetallic?
- What different products do we obtain when P₂O₅ reacts with water?
- Complete and balance $\text{KMnO}_4 + \text{H}_2\text{SO}_4 + \text{FeSO}_4 \longrightarrow$
- How does phosphorous acid act as a reducing agent? Give two examples

Section- III

Note: Attempt all questions

3x8 = 24

- (a) Describe the blocks in the periodic table with significance 4
(b) Describe Sulphuric acid as a drying and dehydrating agent 4
- (a) Discuss the periodic trends in the properties of oxides 4
(b) Describe the methods of preparation of Orthophosphoric acid 4
- (a) Discuss the periodic trends of the I. Ionization energy II. Oxidation state 2+2= 4
(b) Describe the manufacturing of nitric acid 4