

SARALA BIRLA PUBLIC SCHOOL

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Revision Test -1(Chemistry) (17.1.2020)

Class - XI



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1. Compare the structure of H_2O and H_2O_2 . 2
2. a) Carbonmonoxide gas is more dangerous than carbon dioxide gas. Why ?
b) Which gases are responsible for greenhouse effect ? List some of them. 2
3. Explain why?
a) Lithium shows similarities to magnesium.
b) Li shows anomalous behaviour than rest of alkali metals. 2
4. Find oxidation state of 'S' in the following molecules (i) H_2SO_5 (ii) $H_2S_2O_8$. 2
5. Explain why ?
a) $TiCl$ is more stable than $TiCl_3$?
(b) Though NH_3 and NF_3 both are pyramidal but the resultant dipole moment of NF_3 is lower. 2
6. Balance the equations by ion-electron method. 3
a) $Fe^{2+} (aq) + Cr_2O_7^{2-} (aq) \longrightarrow Fe^{3+} (aq) + Cr^{3+} (aq)$ (Acidic medium)
b) $H_2O_2 + Fe^{2+} \longrightarrow Fe^{3+} + H_2O$ (Acidic medium)
7. Give reasons ;
a) alkali and alkaline earth metals not be obtained by chemical reduction methods.
b) Sodium less reactive than potassium.
c) Be and Mg do not give colour to flame whereas other alkaline earth metals do so. 3
8. Define: a) Substitution reaction b) Metamerism c) Electromeric effect 3
9. Explain why ? 3
a) Boron trifluoride behave as a Lewis acid.
b) BCl_3 have zero dipole moment.
c) Boron is unable to form BF_6^{3-} ion.
10. Write chemical reactions to justify that hydrogen peroxide can function as an oxidizing as well as a reducing agent. 3
11. a) Write IUPAC names of the products obtained by addition reactions of HBr to Hex-1-ene in the presence of peroxide.
(b) Why Wurtz reaction is not suitable to prepare all types of alkanes?
(c) An alkene 'A' on ozonolysis gives a mixture of ethanal and pentan – 2 – one. Write the structure of A and also write IUPAC name of A. 5
12. a) Write structures of different chain isomers of alkanes corresponding to the molecular formula C_6H_{14} .
b) What are electrophiles and nucleophiles ? Explain with an example. 5