

**HOLIDAY HOME WORK 2016-2017**

# CHEMISTRY

**Grade: 11**

1. Explain Inductive effect with example

1. Explain why (CH3)3C+ is more stable than CH3CH2+ **.**
2. Write the condensed and bond line formula of 2, 2, 4-Trimethylpentane.
3. Draw the structure of Diborane and explain the formation of Banana bonds.
4. Give the chemical reaction as an evidence for each of the following observations.
5. Tin (II) is a reducing agent whereas lead (II) is not.
6. Gallium (I) undergoes disproportionation reaction.
7. What happens when :
8. Quick lime is heated with coke?
9. Carbon monoxide reacts with Cl2.
10. Give Reasons:
11. C and Si are always tetravalent but Ge, Sn, Pb show divalency.
12. Gallium has higher ionization enthalpy than Al. Explain.
13. Describe two similarities and two dissimilarities between B and Al.
14. What happens when

(a)Borax is heated strongly.

(b)Boric acid is added to water

(c)Aluminium is treated with dilute NaOH.

(d) Boric acid is heated

(e) Silica is treated with fluorine

1. An alkene ‘A’ contains three C – C, eight C – H σ bonds and one C – C π bond. ‘A’ on ozonolysis gives two moles of an aldehyde of molar mass 44 u. Deduce IUPAC name of ‘A’.
2. Addition of HBr to propene yields 2-bromopropane, while in the presence of benzoyl peroxide, the same reaction yields 1-bromopropane. Explain and give mechanism.
3. Write is the structure of the alkene which on reductive ozonolysis gives butanone and Ethanal.
4. Write the reactions for Nitration of benzene, Friedel Crafts Alkylation of benzene and Friedel crafts Acylation of benzene.
5. Draw the structures of following compounds:
6. Buta-1,3-diene
7. 3,4-dimethylpent-1-en-3-ol
8. Aniline
9. 4-nitro aniline
10. Acetophenone
11. Complete the following equations:
12. B(OH)3 + H2O 🡪
13. SiO2 + NaOH 🡪
14. CO + ZnO 🡪
15. Si + CH3Cl 🡪
16. PbCl4 🡪
17. Define Cis and trans isomers with examples.
18. Conversions:
19. Benzene to nitrobenzene.
20. Ethyne to Toluene.
21. Ethyne to ethane.
22. Ethanoic acid to methane.
23. Butyl chloride to octane.

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