Bangladesh International Tutorial Subject: Chemistry Class VII

Second Week: 12-16th April

Worksheet 1

1. True and False:

a) Reduction is the gain of oxygen.

b) Oxidation is the loss of oxygen.

c) Blast furnace is used for the extraction of iron.

d) Solid compounds don't conduct electricity.

2. Complete the following half-equations:

a) $Na^+ + \dots Na$

b) $Li^+ + e^- \longrightarrow \dots$

c) $\dots + 2 e^{-} \longrightarrow Ca$

3. Balance the following equations:

a) H₂+ F₂ \rightarrow HF

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b) Na+ H₂O \rightarrow NaOH + H₂

c) CH₄+ $O_2 \rightarrow CO_2 + H_2O$

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Second Week: 12-16th April Worksheet 2

1. Answer the following questions:

a. Write down two differences between chemical change and physical change.

b. Define oxidation and reduction.

c. What are allotropes? Name two allotropes of carbon.

2. Balance the following equations:

a. NaNO₃ \rightarrow NaNO₂ + O₂

b. CaCO₃+HCl \rightarrow CaCl₂ + CO₂ + H₂O

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Second Week: 12-16th April Worksheet 3

- 1. What is covalent bond? Give three examples.
- 2. Draw the covalent bonding in CO₂.

3. Diamond and graphite are allotropes of carbon. Diamond does not conduct electricity whereas graphite does- explain.

- 4. Simple molecular structures have weak intermolecular forces explain.
- 5. Draw the electronic configuration of the following:

a. Na b. Mg c. N d. O

Video explaining the differences between ionic and covalent bonding https://www.youtube.com/watch?v=S_k0kr2eZSQ