

WEEKLY EXAM 2080/04

Subject: Chemistry

GRADE XII (SCIENCE)

Time : 1:30 hrs.

SET B

Group A

[1×10 = 10]

Attempt all the questions:

- Which of the following transition elements shows the highest oxidation state?
a) Mn b) Co c) Cr d) Fe
- Which of the following elements is not a transition element?
a) Fe b) Zn c) Cr d) Ag
- An alkylhalide can be converted into alcohol by
a) Addition b) Elimination c) Substitution d) Dehydrogenation
- The order of reactivity of alkylhalides towards a SN_1 reaction is,
a) $3^\circ > 2^\circ > 1^\circ$ haloalkane b) $2^\circ > 3^\circ > 1^\circ$ haloalkane
c) $1^\circ > 2^\circ > 3^\circ$ haloalkane d) None
- Alcoholic beverages are made of
a) Ethyl alcohol b) Acetic acid c) Formic acid d) None of these
- Propan-2-ol is
a) 1° alcohol b) 3° alcohol c) 2° alcohol d) None
- Friedel Craft's alkylation is
a) Free radical substitution rx^n b) Electrophilic substitution rx^n
c) Nucleophilic substitution rx^n d) Elimination rx^n
- What is the equivalent mass of $C_2O_4H_2$ in the following reaction?
 $KMnO_4 + C_2O_4H_2 + H_2SO_4 \rightarrow MnSO_4 + K_2SO_4 + CO_2 + H_2O$
a) 90 b) 45 c) 126 d) 31.6
- The basicity of H_2SO_4 is
a) $\frac{x}{5}$ b) $\frac{x}{3}$ c) $\frac{x}{2}$ d) x

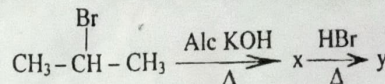
- The equivalent weight of crystalline oxalic acid is
a) 63 b) 53 c) 90 d) 66

Group B

[6×5=30]

Attempt all questions;

- a) Write the possible structural isomers of C_4H_9Br & its IUPAC nomenclature
b) Identify the compounds (x) & (y) write its IUPAC name also.



[3+2]

- Write a short note about Markovnikov's & Antimarkovnikov's addition rx^n with examples. [2.5+2.5]
- How can you distinguish Propan-1-ol, Propan-2-ol and 2-Methyl Propan-2-ol by using Victor Meyer method? [5]
- Why is zinc not considered as a transition element? Write any four characteristics of a transition element. [1+4]
- Calculate the equivalent weight of underlined compounds from the following reactants.
a) $\underline{Fe^{4+}} + Sn^{2+} \longrightarrow Fe^{2+} + Sn^{4+}$ [1×5=5]
b) $\underline{Ca(OH)_2} + 2HCl \longrightarrow CaCl_2 + 2H_2O$
c) $NaOH + \underline{SO_2} \longrightarrow NaHSO_3$
d) $3NaOH + \underline{H_3PO_4} \longrightarrow Na_3PO_4 + 3H_2O$
e) $2NaOH + \underline{H_2SO_4} \longrightarrow NaHSO_4 + H_2O$
- Define Acidity of base? Calculate the equivalent mass of $KMnO_4$ in acidic, basic & neutral medium. [2+3]

All the best