



12th Science : Chemistry
Halogen Derivatives,

DATE:

TIME: 1 hour

MARKS: 25

SEAT NO:

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Note:-

1. All Questions are compulsory.
2. Numbers on the right indicate full marks.

Section A

Q.1 Select and write the correct answer.

(4)

1. The organic chloro compound which shows complete stereochemical inversion during a S_N2 reaction is
A) CH_3Cl B) $(C_2H_5)_2CHCl$
C) $(CH_3)_3CCl$ D) $(CH_3)_2CHCl$
2. Which one of the following gives only one monochloro derivative?
A) n - Hexane B) 2 - Methyl pentane
C) 2, 3 - dimethyl pentane D) neo-pentane
3. Among the following, the most reactive towards alc. KOH is
A) $CH_2 = CH Br$ B) $CH_3COCH_2CH_2Br$
C) CH_3CN_2Br D) $CH_3CH_2CH_2Br$
4. The optically inactive compound is
A) Glucose B) Lactic acid
C) 2 - chlorobutane D) 2 - chloropropane

Q.2 Answer the following.

(3)

1. Haloarenes are insoluble in water but are soluble in benzene. Explain.
2. What is an electrophile?
3. What type of reactions are observed in benzene?

Section B
Attempt any Four

- Q.3 Explain how nature of nucleophile affects the reactivity of S_N1 and S_N2 ? **(2)**
- Q.4 How will you obtain 1-Bromo-1-methylcyclohexane from alkene? Write possible structures of alkene and the reaction involved. **(2)**
- Q.5 Out of $HCl_{(g)}$ and $SOCl_2$, which is preferred for converting ethanol into chloro ethane? **(2)**
- Q.6 How do alkyl halides react with silver salts of fatty acids? **(2)**
- Q.7 Give reason: Reactions involving Grignard reagent must be carried out under anhydrous condition. **(2)**

