ROLL NUMBER				

SET B

INDIAN SCHOOL MUSCAT

FIRST PERIODIC TEST

CHEMISTRY

CLASS: XII Sub. Code: 043 Time Allotted: 50mts.

18.04.2022 Max .Marks: 20

GENERAL INSTRUCTIONS:

- ***a. All questions are compulsory.***
- ***b. Mark for each question is indicated against it***

Following questions are multiple choice type carrying 1 mark each:

1. Which of the following compound is chiral? 1
   a) Butan-2-ol b)1-Bromobutane c)2-Bromopropane d)2-Bromopropan-2-ol

2. The major product formed when but-1-ene is treated with chlorine in the presence of UV light is 1
   a) 4-Chlorobut-1-ene
   b) 3-Chlorobut-1-ene
   c) 1-Chlorobut-1-ene
   d) 1,2-dichlorobutane

3. Which one of the following is the most reactive by S_N2 mechanism? 1
   a) CH_3—Br
   b) CH_2=CH—CH_2—Br
   c) C_6H_5—CH_2—Br
   d) $(CH_3)_3C$—Br

In the following questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.

- **A.** Assertion and reason both are correct statements and reason is correct explanation for assertion.
- **B.** Assertion and reason both are correct statements but reason is not correct explanation for assertion.
- **C.** Assertion is correct statement but reason is wrong statement.
- **D.** Assertion is wrong statement but reason is correct statement

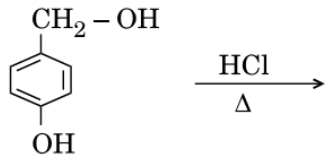
4. Assertion : S_N2 reaction of an optically active aryl halide with an aqueous solution of KOH always gives an alcohol with opposite sign of rotation. 1

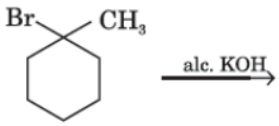
Reason : S_N2 reactions always proceed with inversion of configuration

5. Assertion: Aryl iodides can be prepared by reaction of arenes with iodine in the presence of an oxidising agent. 1

Reason: Oxidising agent oxidises I_2 into HI.

Predict the major product:

6.  1

7.  1

Answer the following

8. Write the IUPAC name of $(CH_3)_3CCH=CClC_6H_5$ 1

9. Draw the structure of neopentyl iodide 1

10. Convert Ethanol to nitroethane. 1

11. Give the chemical tests to distinguish the following compounds: 1

3-Chloropropene and 1-chloropropene

12. Write equations for the following 2

a) Swarts reaction
b) Wurtz reaction

13. Explain why 2

a) Haloarenes are less reactive towards nucleophilic substitution reaction.
b) Thionyl chloride is best reagent for converting alcohols to haloalkanes

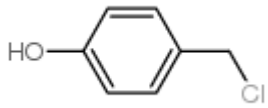
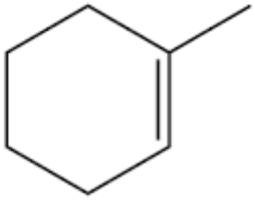
14. Explain the following 2

a) Inversion of configuration.
b) Zaitsev rule

15. An optically active compound having molecular formula C_4H_9Br reacts with aqueous KOH to give a racemic mixture of products. Identify the compound and write the mechanism involved for the reaction. 3

INDIAN SCHOOL MUSCAT

NAME OF THE EXAMINATION FIRST PERIODIC TEST	FIRST PERIODIC TEST	CLASS: XII
DATE OF EXAMINATION 18/04/22		SUBJECT: CHEMISTRY
TYPE	MARKING SCHEME	

SET	Q.NO	VALUE POINTS	MARK
B	1	A	1
	2	B	1
	3	A	1
	4	D	1
	5	C	1
	6		1
	7		
	8	1-chloro-3,3dimethyl-1-phenylbut-1-ene	
	9	Neopentyl iodide structure	
	10	SOCl2/PCl5/PCl3 &AgNO2	
	11	3-Chloropropene would give white ppt soluble in NH4OH on reaction with aq KOH followed by dil HNO3 &AgNO3. Chlorobenzene would not	
	12	a)Swarts reaction b)Wurtz reaction	

	13	a) Any two reasons b) Byproducts are gases which leaves the alkyl halide in pure state	
	14	a) Racemisation b) Zaitsev rule	
	15	Any sec alkyl halide Mechanism two steps	1 1+1