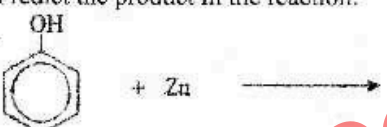









Paper Code Number: 4481		2023 (1 st -A) INTERMEDIATE PART-II (12 th Class)		Roll No: <u>54</u>	
CHEMISTRY PAPER-II GROUP-I					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	Pick the element having least melting point among alkaline earth metals?	Be	Ca	Mg	Sr
2	The mineral sylvite has the chemical formula:	NaCl	KCl	MgCO ₃	CaCO ₃
3	Boric acid cannot be used:	As antiseptic in medicine	For washing eyes	In soda bottles	For enamels and glazes
4	Oxidation of NO in air produces:	N ₂ O	N ₂ O ₃	N ₂ O ₅	N ₂ O ₄
5	Which halogen does occur naturally in positive oxidation state?	I ₂	Br ₂	Cl ₂	F ₂
6	The purest form of commercial iron is:	Pig iron	Cast iron	Wrought iron	Steel
7	Which one of the following is not heterocyclic compound?	Naphthalene	Pyridine	Furan	Pyrrole
8	The reaction step shown is known as: $H_3C-CH_2-OSO_3H + H_2O \xrightarrow{100^\circ C} H_3C-CH_2-OH + H_2SO_4$	Hydrolysis	Hydration	Hydroxylation	Hydrogenation
9	Predict the product in the reaction: 				
10	For which mechanism the first step involved is the same?	E ₁ and E ₂	E ₂ and SN ₂	SN ₁ and E ₂	E ₁ and SN ₁
11	Which compound shows maximum hydrogen bonding with water?	C ₂ H ₆	C ₂ H ₅ Cl	C ₂ H ₅ OH	CH ₃ -O-CH ₃
12	Which among the following is known as Carboic acid?	C ₆ H ₅ OH	C ₂ H ₅ OH	CH ₃ COOH	CH ₃ -O-CH ₃
13	Ketones are prepared by oxidation of:	Primary alcohol	Secondary alcohol	Tertiary alcohol	All of these
14	Acetamide is prepared by heating:	Ammonium acetate	Methyl cyanide	Ethyl acetate	Ethyl cyanide
15	Natural starch consists of how much percentage of amylose?	50%	80 – 90%	10 – 20 %	40%
16	Micronutrients are required in the quantity ranging from:	4 – 40 g	6 – 200 g	6 – 200 kg	4 – 40 kg
17	A single chloride free radical can destroy how many ozone molecules?	10 ⁵	10 ⁴	10 ²	10 ³

2023 (1 st -A)		Roll No: 
INTERMEDIATE PART-II (12 th Class)		
CHEMISTRY PAPER-II GROUP-I		
TIME ALLOWED: 2.40 Hours	SUBJECTIVE	MAXIMUM MARKS: 68
NOTE: Write same question number and its parts number on answer book, as given in the question paper.		

SECTION-I

2. Attempt any eight parts.		8 × 2 = 16
(i)	What is chemical garden?	2
(ii)	How is boric acid prepared from borax?	2
(iii)	What is the effect of heat on boric acid?	2
(iv)	Complete the following reactions:	1 + 1
(a)	 + SO ₃ $\xrightarrow{\text{Forming H}_2\text{SO}_4}$?	(b)  + $\frac{15}{2}$ O ₂ \longrightarrow ?
(v)	Give the general mechanism of electrophilic substitution reactions of benzene.	2
(vi)	What is meant by the terms? (a) Nitration (b) Oxidation	1 + 1
(vii)	What are steroids? Give one example.	2
(viii)	Name the important bases which make up DNA and RNA.	2
(ix)	Prepare polystyrene and give its two uses?	2
(x)	What is acid rain?	2
(xi)	How do chlorofluorocarbons destroy the ozone layer?	2
(xii)	Write the names of various stages in water treatment.	2
3. Attempt any eight parts.		8 × 2 = 16
(i)	What are alicyclic compounds? Give their two examples.	
(ii)	What is cracking of petroleum? Give an example.	
(iii)	How will you convert acetic acid to ethane?	
(iv)	Describe Wolf-Kishner's reduction.	
(v)	How is Mustard gas prepared from ethene?	
(vi)	Why do the elements of group VI A other than oxygen show more than two oxidation states?	
(vii)	Why is SO ₃ dissolved in H ₂ SO ₄ and not in water?	
(viii)	Describe "Ring test" for the confirmation of the presence of nitrate ions in solution.	
(ix)	How is Grignard's reagent prepared? Give its equation.	
(x)	What is an electrophile? Give its two examples.	
(xi)	Define Paper. Mention its two woody raw materials.	
(xii)	What are Macronutrients? Give their requirement per acre.	
4. Attempt any six parts.		6 × 2 = 12
(i)	How is paramagnetism related with unpaired electrons?	
(ii)	Why do transition elements exhibit more than one oxidation states?	
(iii)	What is tin plating?	
(iv)	Give two reactions which involve the cleavage of O-H bond in alcohols.	
(v)	Why can 100% alcohol not be prepared by fermentation?	
(vi)	How phenol is prepared from Dow's process?	
(vii)	Give the reaction of acetone with hydrazine and hydroxylamine.	
(viii)	How is formaldehyde prepared on industrial scale?	
(ix)	How is acetic acid prepared from CO ₂ ?	

SECTION-II

NOTE: Attempt any three questions.		3 × 8 = 24
5.(a)	State modern periodic law. How the classification of elements in different blocks helps in understanding their chemistry?	1 + 3 = 4
(b)	Write down the problems and their solutions during working of Diaphragm cell.	2 + 2 = 4
6.(a)	Describe the peculiar behaviour of Fluorine. (any four points)	4
(b)	What are the principal methods of chemical pulping? Discuss in detail digestion process involved in neutral sulphite semi chemical process?	1 + 3 = 4
7.(a)	Write a note on reforming of Petroleum.	4
(b)	Explain structure of Benzene by resonance method.	4
8.(a)	How will you bring about the conversion of ethyne into neoprene? Mention the equations.	4
(b)	What are nucleophilic substitutions reactions? Explain S _N 1 reaction.	4
9.(a)	What is cyclic polymerization of Alkynes? Give the mechanism of aldol condensation reaction.	4
(b)	Describe two methods for the preparation of amino acids.	4