

Paper Code Number: 4482		2025 (1 st -A) INTERMEDIATE PART-II (12 th Class)		Roll No:	
CHEMISTRY PAPER-II GROUP-II					
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	Mark the correct option/statement:	Cl^- (ion) and Cl (atom) are equal in size	Na^+ is larger than Na atom	Cl^- is smaller than Cl atom	Na^+ is smaller than Na atom
2	Which element is deposited at the cathode during the electrolysis of brine in diaphragm cell?	H_2	Na	Cl_2	O_2
3	Boric acid cannot be used:	An antiseptic in medicine	For washing eyes	In soda bottles	For enamels and glazes
4	Laughing gas is chemically:	NO	N_2O	NO_2	N_2O_4
5	Hydrogen bond is the strongest between the molecules of:	HI	HCl	HBr	HF
6	Group <u>VII B</u> of transition elements contains:	Zn, Cd, Hg	Fe, Ru, Os	Cr, Mo, W	Mn, Te, Re
7	Linear shape is associated with which set of hybrid orbitals?	sp	sp^2	sp^3	dsp^2
8	Vinyl acetylene combines with HCl to form:	Polyacetylene	Benzene	Chloroprene	Divinyl acetylene
9	The electrophile in aromatic sulphonation is:	SO_3	H_2SO_4	SO_3^+	HSO_4^-
10	For which mechanisms, the first step involved is the same:	$E1$ and $E2$	$E1$ and S_N1	S_N1 and $E2$	$E2$ and S_N2
11	Which compound is called a universal solvent?	H_2O	CH_3OH	C_2H_5OH	CH_3-O-CH_3
12	Which of the given compounds will not give iodoform test?	Acetaldehyde	Acetone	Butanone	3-pentanone
13	Acetamide is prepared by:	Heating ethyl acetate	Heating methyl cyanide	Heating ammonium acetate	Hydrolysis of methyl cyanide
14	Which of these polymers is an addition polymer?	Nylon 6, 6	Polystyrene	Terylene	Epoxy resin
15	Micro-nutrients are required in quantity ranging from:	6 – 200 g	4 – 40 g	6 – 200 kg	4 – 40 kg
16	Newspaper can be recycled again and again by how many times?	2	3	5	4
17	The pH range of the acid rain is:	7 – 6.5	6.5 – 6	6 – 5.6	Less than 5

INTERMEDIATE PART-II (12 th Class)		2025 (1 st -A)	Roll No: _____
CHEMISTRY PAPER-II GROUP-II			
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 Lanthanide Contraction?	(ii)	Define hydration energy of ions with an example.
(iii)	Why lime is added to acidic soil?	(iv)	Why 2% Gypsum is added to cement?
(v)	Define Meta directing group with example.	(vi)	Define Metamerism. Give an example.
(vii)	What is octane number? How is it improved?	(viii)	How will you prepare acetone from propyne?
(ix)	How ethyne is converted into benzene?	(x)	How Maleic acid is prepared from benzene?
(xi)	What is Wurtz synthesis? Give reaction.		
(xii)	Write down the main factors on which reactivity of alkyl halide depends.		
3. Attempt any eight parts.			8 × 2 = 16
(i)	How will you convert boric acid into borax and borax into boric acid?		
(ii)	Give the four names and formulas of different acids of boron.		
(iii)	Why is SO_3 dissolved in H_2SO_4 , not in water?		
(iv)	Write any four uses of HNO_3 .		
(v)	Write down formulas of (a) Picric acid (b) Methoxy benzene		
(vi)	Show reactions to prepare ethers by Williamson's synthesis.		
(vii)	Define amino acids. Give two examples.		
(viii)	What is glacial acetic acid?		
(ix)	Give general mechanism of acid catalysed addition reactions for aldehydes.		
(x)	What is sodium nitroprusside test?		
(xi)	Define Saponification number and iodine number.		
(xii)	What is acidic number?		
4. Attempt any six parts. www.ilmkidunya.com			6 × 2 = 12
(i)	Why HF is weaker acid than HCl ? Justify.		2
(ii)	Write down four peculiar behaviour of fluorine.		2
(iii)	How chromate ions are converted into dichromate ions?		2
(iv)	Why does damaged tin plated iron get rusted quickly?		2
(v)	What are macronutrients? Name any four macronutrients.		2
(vi)	Briefly describe pulp washing in neutral sulphite semi-chemical process.		2
(vii)	Name the components of environment. Briefly describe any one.		1+1
(viii)	What is acid rain? How does it affect our environment?		2
(ix)	Briefly describe Solid Waste.		2
SECTION-II			
NOTE: Attempt any three questions.			3 × 8 = 24
5.(a)	What are the oxides? Describe their classification on the basis of their acidic and basic behaviour.		1+3
(b)	Describe with diagram the manufacturing of caustic soda by diaphragm cell.		1+3
6.(a)	What is orbital hybridization? Explain sp^3 Hybridization in Methane molecule.		4
(b)	Define Alkylation, give one example and explain mechanism of reaction.		4
7.(a)	How will you prepare sodium formate and sodium benzoate through Cannizzaro's reaction? Give mechanisms.		4
(b)	How will you synthesize the following compounds starting from ethyne? (i) Oxalic acid (ii) Ethane (iii) Methyl nitrile (iv) Benzene		4
8.(a)	How ethanol is prepared by fermentation method from molasses and from starch? Explain it.		2+2
(b)	How will you prepare acetic acid by using the following: (i) From alkane nitriles (ii) By the hydrolysis of esters		2+2
9.(a)	Write Beckmann's method for the manufacturing of Bleaching Powder.		4
(b)	Describe open hearth process briefly.		4