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2023 (1^{st}-A) INTERMEDIATE PART-II (12^{th} Class)	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)	Write two uses of borax.	
(ii)	Why are liquid silicones preferred over ordinary organic lubricants?	
(iii)	What is asbestos? Give its uses.	
(iv)	Write two addition reactions of benzene.	
(v)	How will you prepare benzene from n – Hexane?	
(vi)	How does ozone react with benzene to give glyoxal?	
(vii)	What is a copolymer? Give an equation for its preparation.	
(viii)	Draw the structure of sucrose.	
(ix)	What are conjugated proteins?	
(x)	Mention the conditions which are required for the formation of smog?	
(xi)	What do you mean by biochemical oxygen demand (BOD)?	
(xii)	What is incineration? Give its two disadvantages.	
3. Attempt any eight parts.		**8 × 2 = 16**
(i)	What is meant by fuming nitric acid?	
(ii)	Give two methods for preparation of NO_2.	
(iii)	Give the reaction occurring in contact tower to prepare H_2SO_4.	
(iv)	What is functional group? Write formulas of two oxygen containing functional groups.	
(v)	Define metamerism with one example.	
(vi)	Give reaction for incomplete oxidation of methane.	
(vii)	What do you mean by inertness of sigma bond in alkanes?	
(viii)	What is meant by dehydrohalogenation of alkyl halides?	
(ix)	What is nucleophile and electrophile?	
(x)	How can ethyl bromide be converted into ethyl acetate and ethyl thioalcohols?	
(xi)	What are fertilizers? Give any two qualities of good fertilizer.	
(xii)	Write down names of woody raw materials of paper.	
4. Attempt any six parts.		**6 × 2 = 12**
(i)	Differentiate between paramagnetism and diamagnetism.	
(ii)	What is sacrificial corrosion?	
(iii)	Define the term coordination number with two examples.	
(iv)	What is Williamson's Synthesis?	
(v)	Ethanol obtained by fermentation does not exceed 14%. Give the reason.	
(vi)	Write down the different products obtained by dehydration of ethanol at different temperatures.	
(vii)	What are oximes? How can they be produced?	
(viii)	How can aldehydes and ketones be differentiated by Fehling's solution test?	
(ix)	Differentiate between protein and polypeptide.	

SECTION-II

NOTE: Attempt any three questions.		**3 × 8 = 24**
5.(a)	What are the oxides? Classify oxides on the basis of acidic and basic behaviour with examples.	4
(b)	Describe any eight points to show the role of lime in industry.	4
6.(a)	Give the rules for nomenclature of oxyacids of halogens.	4
(b)	Discuss the wet process for the manufacture of cement up to clinker formation.	4
7.(a)	Define *sp* hybridization. Explain the formation of ethyne molecule according to this approach.	4
(b)	Write a note on stability of benzene.	4
8.(a)	Write down the mechanism of Kolbe's electrolytic method for the preparation of ethene.	4
(b)	Explain the mechanism of SN_2 reactions in detail.	4
9.(a)	Describe with mechanism "aldol condensation" reaction. Why formaldehyde does not give this reaction?	3+1
(b)	How would you convert acetic acid into the following compounds? (i) Methane (ii) Acetyle chloride (iii) Acetamide (iv) Acetic anhydride	4

Paper Code Number: 4482	2023 (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 statement:	Metallic character increases down the group.	Metallic character increases from left to right along a period.	Metallic character remains the same down the group.	Metallic character remains the same from left to right along a Period.
2	The mineral ($CaSO_4.2H_2O$) has the general name:	Epsom salt	Dolomite	Calcite	Gypsum
3	Which element forms an ion with charge +3?	Beryllium	Aluminium	Carbon	Silicon
4	Which of the following species has the maximum number of unpaired electrons?	O_2	O_2^+	O_2	O_2^{2-}
5	Which of the following hydrogen halide is the weakest acid in solution?	III	HBr	HF	$IIC\ell$
6	Coordination number of Pt in $[PtC\ell(NO_2)(NH_3)_4]$ is:	2 –	4	1	6
7	A double bond consists of:	Two sigma bonds	One sigma and one Pi-bond	One sigma and two Pi-bonds	Two Pi-bonds
8	β, β' – dichloroethyl sulphide is commonly known as:	Mustard gas	Laughing gas	Phosgene gas	Bio-gas
9	Amongst the following, the compound that can be most readily sulphonated is:	Nitrobenzene	Benzene	Toluene	Chlorobenzene
10	When CO_2 is made to react with ethyl magnesium iodide, followed by acid hydrolysis, the product formed is:	Propane	Propanoic acid	Propanal	Propanol
11	The solution of which acid is used for manufacture of pickles:	Acetic acid	Formic acid	Benzoic acid	Butanoic acid
12	Which of the following reagent will react with ketones?	Tollen's reagent	Fehling's reagent	Benedict's reagent	Grignard's reagent
13	Which compound will have the maximum repulsion with H_2O?	C_2H_5OH	$CH_3CH_2CH_2OH$	C_6H_6	CH_3-O-CH_3
14	Which compound is used as anti-freezing agent in automobile radiator?	CH_3OH	CH_3-O-CH_3	$CH_3CH_2CH_2OH$	$CH_3CH_2OCH_2CH_3$
15	Vegetable fats are:	Unsaturated fatty acids	Essential oils obtained from plants	Glycerides of saturated fatty acids	Glycerides of unsaturated fatty acids
16	Major nitrogen fertilizers are:	Urea and ammonium nitrate	Urea and super phosphate	Ammonia and DAP	Diammonium phosphate only
17	The substances which directly kill the unwanted organisms are called:	Fungicides	Insecticides	Pesticides	Herbicides