Answer Sheet No. CHEMISTRY					Roll No.					
•		PART – II			BJECT	(\$)	L			
- 4				MEDIATE)		(*)				
n. Dy. Su	ndnt	Fic		Roll No. (For Off	ice Use)		5	Sign. Candidate		
n. Dy. Su	punt.	110	inious i	ton mor (r or or						
HEMI		(Group – I)		021/1		Smart Syllabus)		- 17		
ART -II	•	4 Day	(INIE	RMEDIATE)			arks me	: 17 : 20 Minutes		
BJECT		,						, _ , _ , _ , _ , _ , _ , _ , _ , _ , _		
	:- Write your Roll No. in space provided. Over writing, cutting, using of lead pencil will result in loss of marks. All questions are to be attempted.									
- will Each	will result in loss of marks. All questions are to be attempted. Each question has four possible answers, Tick ($\sqrt{}$) the correct answers									
1						s the correct on				
	Α	Mg > Sr	В	Ba > Mg	С	Lu > Ce	D	CI > I		
2	Whic	ch one of the fo	llowing	j is not an alka	li metal	;				
	Α	Francium	В	Caesium	С	Rubidium	D	Radium		
3	Tinc	al is mineral of	;							
	Α	Al	В	В	С	Si	D	С		
4	Oxio	lation of NO in	air pro	duces;						
	A	N₂O	В	N ₂ O ₃	С	N ₂ O ₄	D	N ₂ O ₅		
5	Whie	ch halogen will	react s	pontaneously	with Au	(s) to produce A	u ³⁺ ?			
	Α	Br ₂	В	F ₂	c	I ₂	D	Cl ₂		
6										
	Α	CIO ₃	В	CIO ₂	С	Cl ₂ O ₅	ם	Cl ₂ O ₇		
7		ch of the fo <mark>llow</mark>	ing is a		tion me		11.			
	A	Sc	В	Y	С	Ra	D	Со		
8	Which set of Hybrid orbitals has planar triangular shape;									
	Α	sp ³	В	sp	С	sp ²	D	dsp ²		
9	Forr	nula of Chlorof	orm is;				l	The state of the s		
	A	CH ₃ CI	В	CCI ₄	С	CH ₂ Cl ₂	D	CHCI ₃		
10										
10	A		В		С	NO ₂	D	HNO ₃		
	A NO ₃ A NO ₂ A A A A A A A A A A A A A A A A A A A									
11							E4 and C 4			
	A	E1 and E2	В	E2 and S _N 2	C	S _N 1 and E2	ט	E1 and S _N 1		
12										
	Α	C ₂ H ₆	В	C₂H₅CI	С	CH ₃ – O – CH ₃	D	C₂H₅OH		
13	1	ch of the follow aOH:	ing co	mpounds will r	not give	iodoform test o	n tre	atment with		
	Α	Acetaldehyde	В	Acetone	С	Butanone	D	3 – Pentanone		
14	The	carbon atom o	f a carl	oonyl group is;		and the second s	,			
	Α	sp-Hybridized	В	sp ² -Hybridize	d C	sp ³ -Hybridized	D	None of these		
15	Whi	ch reagent is u	sed to	reduce a carbo	xylic g	roup to an Alcol	iol;			
	A	H ₂ /Ni		H ₂ /Pt	С	NaBH ₄	D	LiAIH4		
16		solution of wh			asonin	g of food;	اـــــا			
10			-TT-	Acetic Acid	С	Benzoic Acid	D	Butanoic Acid		
Ĺ	Α	Formic Acid	В	Acetic Acid		Delizoic Acid		Dutanole Act		

Which three Elements are needed for the healthy growth of plants;

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PAPER: PART-II

(Smart Syllabus)

INTERMEDIATE

AJK-21

(Group - I)

MARKS: 68

TIME: 2:40 Hours

acetamide.

9- (a) Convert benzene into

(SUBJECTIVE PART)

Note:- Attempt any TWENTY TWO (22) short questions in all selecting eight from Q. 2 and

Q. 3 each and six from Q. 4.

 $(22 \times 2 = 44)$

(04)

(04)

c.	_	•	1	О	N.	164.04
				u	1.0	

2-	Att	empt any eight parts.	$(2 \times 8 = 16)$			
	i	The hydration energies of the ions are in the following order; Al ³⁺ > Mg ²⁺ > Na ⁺ , give reason.	li	lonic character of halides decreases from left to right in a period, comment.		
	iii	Why is the aqueous solution of Na₂CO₃ alkaline in nature.	iv	Give the decomposition reaction of lithium carbonate and lithium nitrate.		
Ī	٧	Write peculiar behaviour of carbon.	vi	Give the names and the formulas of different acids of Boron.		
	vii	How will you convert Boric acid into borax and vice versa?	viil	than oxygen show more than two oxidation states?		
	ix	How does nitrogen differ from other elements of its group.		Describe the role of nitrogeneous fertilizers for plants.		
	хi	Give any four essential qualities of good fertilizer.	xii	Define cement.		

 $(2 \times 8 = 16)$ Attempt any eight parts. 3-Write down the reactions of chlorine ii How chlorine dioxide (CIO₂) can be with cold and hot NaOH. prepared. What is meant by anode coating? iv Write down the formulas of following iii (a) Fluorspar (b) Carnallite aromatic monocyclic What are Why oxidation state of transition Vi Give at least two hydrocarbons. elements are variable? examples. Write down four uses of Acetaldehyde. How benzene can be converted into viii maleic acid by catalytic oxidation. Write down the four uses of Acetic acid. Write the reaction of acetone with X (a) HCN (b) NaHSO3 How would you prepare acetic acid Write down the mechanism for the xii starting from C_2H_5 -OH and $CH_3 - C \equiv N$. conversion of carboxylic acid into

4- Attempt any six parts. (2 x 6 = 12)

i	Define organic chemistry and catenation?	ii	Write names and formulas of any two antiknocking agents?
III	Write down structural formulas for iso-Butylene and neo-pentane.	iv	Why alkanes are also called paraffins?
V	How does acetylene react with NH ₃ and HCN?	vi	What is Wurtz synthesis?
vii	Write down any two differences between E1 and E2 reaction?	viii	How is ethanol made denatured?
ix	Distinguish between methanol and ethanol by a chemical test?		

SECTION - II								
Note	:- Attempt any three questions.	$(8\times3=24)$						
5- (a) What is ionization energy, give an example. How does it vary in groups								
J- (a)	and periods.	(04)						
	ally periods.	(04)						
(b)	Describe preparation of sodium metal by Down's cell.	(0.)						
6- (a)	Enlist any four properties of transition elements. Also explain the	40.43						
	properties. (i) Interstitial compounds (ii) Alloy formation.	(04)						
(b)	Give the reactions of sulphuric acid with:	(04)						
(12)								
	(1) Odiboti (11)	(04)						
7- (a)	Discuss four features of organic compounds.	(04)						
(b)	(b) Discuss the Aldol condensation reaction with example.							
	Also write its mechanism.	(04) (04)						
8- (a)								
0- (a)								
	(ii) Dehalogination of vicinal Dihalides.							
	(iii) Dehydration of primary Alcohol.							
	(iv) By hydrogenation of Alkyne.							
(h)	Explain S _N 1 reaction with example.	(04)						
(1)	Explain of the control of the contro	(04)						

(i) Maleic anhydride (ii) Glyoxal (iii) Benzoic acid (iv) Cyclohexane

How will you obtain pure Ethanol by fermentation of starch.