./[	2,1011/ 2.	.13
1219 Warning:- Please write your Roll No. in the sp	2,9,000	
(Inter Part – II) (Session, 2015-17 to		Roll No
Chemistry (Objective) (Group - I)	Paper II	of Student
Time Allowed: - 20 minutes PAPER CO	DE 4492	nimum M. I
Note:- You have four choices for each objective type	quarties A D G	ximum Marks:- 17
think is correct; fill that circle in front of that questi Cutting or filling two or more circles will result in	on number. Use marke	er or pen to fill the girales
Cutting or filling two or more circles will result in a which is printed on this question paper on the	ero mark in that question	on. Write PAPER CODE
which is printed on this question paper, on the accordingly, otherwise the student will be responsible	both sides of the Answ	ver Sheet and fill bubbles
correcting fluid is not allowed.	le for the situation. Use	of lnk Remover or white
1. The main pollutant of leather tanneries in the w	Quaste water is due to the	olt of
(b) Chromium (VI)	(C) Copper	(D) Chromium (III)
2. Which is more acidic oxide in the following?	· / II	(D) Chromain (III)
(A) $MnO$ (B) $Mn_2O_3$	(C) $MnO_2$	(D) $Mn_2O_2$
3. General name of mineral $MgSO_4 \cdot 7H_2O$ is?		
(A) Gypsom (B) Dolomite 4. Chemical formula of litharge is?	(C) Calcite	(D) Epsom salt
(A) $Pb_2O$ (B) $SiO_2$	(C) N O	
5. The lowest ionization energy is possessed by?	(C) PbO	(D) $Pb_3O_4$
(A) P (B) N	(C) Sb	(5)
6. Which is the strongest oxidizing agent in the following	lowing?	(D) As
(A) $I_2$ (B) $Cl_2$	(C) F.	(D) Br <sub>2</sub>
7. Which one of these elements is a typical transiti	on element?	$(D)$ $Bi_2$
(A) N1 (B) Zn	(C) C4	(D) Hg
8. Number of possible chain isomers of alkane	$C_5 H_{12}$ are?	. , ,
(A) 2 (B) 3	(C) 4	(D) 5
<ul> <li>9. Structural formula of vinyl chloride is</li> <li>(A) HC = C - Cl</li> <li>(B) H-C = CHC</li> </ul>	. (0)	
(A) $HC \equiv C - Cl$ (B) $H_2C = CHCl_{AB}$	(C) $H_3C - CHCl_2$	(D) $H_2 C - C H_2$
		Cl Cl
10. Which one of the following species is an electro	n withdrawing?	
$(A) - CH_3$ $(B) - CHO$	(C) - OH	(D) $-NH_2$
11. When ethyl magnesium bromide is reacted with formed is?	HCHO, followed by acid	d hydrolysis, the product
(A) Ethanol (B) 1-propanol		
12. Which compound will have maximum repulsion	(C) 2-propanol	(D) Ethanoic acid
(A) $H_5C_2OH$ (B) $H_3COH$	(C) $C_6H_6$	(D) 11 C O CH
13. Which one of the following compounds will read	et with Febling's solution	(D) $H_3C - O - CH_3$
(B) $H_3C \cdot CHO$	(C) $H_3CCOOH$	
14. Chemical formula of glycine is?	(-) 11,000011	(D) $H_3C - COCH_3$
(A) $H_3CCOOH$ (B) $H_1C \cdot CHO$	(C) $H_2N \cdot CH_2COOH$	(D) H.C.CO.CH
15. Which nitrogeneous base is not present in RNA?	2	(=) 1130 CO CH3
(A) Thiamine (B) Cytosine	(C) Adenine	(D) Uracil
16. Which of these polymers is a synthetic polymer?  (A) Animal fat  (B) Starch		
17. Which is not a calcarious material?	(C) Cellulose	(D) Polyester
(A) Clay (B) Lime	(C) Marble	(D) Marina Ch. 11
<b>1279</b> 1219		(D) Marine Shell
1219 1219	13000 (2)	

Warning:- Please, do not write anything on this question paper except your Roll No. (Session 2015-17 to 2017-19) \* 1219 (Inter Part-II) Chemistry (Subjective) Maximum Marks: 68 Time Allowed: 2.40 hours **SECTION** ---Answer briefly any EIGHT parts from the followings: 8×2=16 Write two properties of covalent hydrides (ii) Define Lanthanides and Actinides. Complete and balance the following equations (a)  $Li_2CO_3 + heat \Rightarrow$  (b)  $NaNO_3 + heat \Rightarrow$ How Borax is used as water softening agent. Justify that  $CO_2$  is acidic in nature. (v) (vii) What is aqua regia. How is it dissolves the gold. How  $H_3BO_3$  reacts with (a)  $C_2H_5OH$  (b) NaOHWrite chemical Equations showing effect of (ix) How temperature affects the gaseous temperature on  $H_1PO_4$ Nitrogen di-oxide  $(NO_2)$ What do you mean by setting of cement. Why  $NH_ANO_3$  is not used as fertilizer for paddy rice. (xi) What is Biochemical oxygen demond (BOD) Answer briefly any EIGHT parts from the followings:- $8 \times 2 = 16$ Write down the useful by-products obtained What is Clemmensen reduction? Give an (ii) in the process of cracking. example. Why alkanes are less reactive than alkenes? Write down the structural formulas of (iv) (a)Naphthalene (b)Phenanthrene Write down five resonance structures of Give IUPAC names of the following compounds. (vi) benzene. (a)  $(CH_3)_3 C - CH_2 - Cl$  (b)  $(CH_3)_2 CHBr$ What are Grignard's reagents. How are these produced? How Phenol is prepared by Dow's process? (viii) How Phenol reacts with formaldehyde? Write down the formulas of (x) (a) Palmitic acid (b) Iso-Butyric acid Write down the mechanism for the reaction How can you convert acetic acid into (xii) (a) Methane (b) Acetyl chloride between CH<sub>3</sub>COOH and NH<sub>3</sub>  $6 \times 2 = 12$ Answer briefly any SIX parts from the followings:-Complete and balance following equations. (a)  $HClO_4 + P_2O_5 \xrightarrow{-10 \text{ °C}}$  (b)  $HgO + Br_2 \xrightarrow{50 \text{ °C}}$ Write order of acid strength of oxyacids of (iii) What happens when bleaching powder reacts with chlorine. (a)  $conc.H_2SO_4$  (b)  $NH_3$ Write industrial method for the preparation of Give systematic names to following complexes (v) formaldehyde. (a)  $K_{2}[PtCl_{6}]$  (b)  $[Co(NH_{3})_{4}]Cl_{3}$ What is Cannizzaro's reaction? Give an example. Define thermoplastic and thermosetting polymers. (vii) What are polyester resins? Give an example (ix) What is meant by denaturing of proteins. with reaction equation.

## SECTION ----- II

Note: Attempt any three questions from the following.

2.

(i)

(iii)

(iv)

(vi)

(viii)

(x) (xii)

3.

(i)

(iii)

(v)

(vii)

(ix)

(xi)

4.

(i)

(ii)

(iv)

(vi)

(viii)

- (a) How does the classification of elements in different blocks help in understanding their chemistry
  - (b) How is sodium metal extracted by Down's cell? Describe the products formed by this cell on different electrodes by balanced chemical equation.
- 6. (a) Explain the electrochemical theory for corrosion.
  - (b) What is smog? Explain the pollutants which are the main causes of photochemical smog.
- 7. (a) Define Isomerism and explain any two types of structural isomerism with examples.
  - (b) Discuss the stability of benzene in detail with reference to 1,3,5 cyclohexatriene.
- 8. (a) Explain the polymerization of acetylene in detail.
  - (b) Describe the preparation of ethyl alcohol by fermentation of starch and molasses.
- 9. (a) How does acetaldehyde react with (i)  $C_2H_5MgBr$  (ii)  $NaHSO_3$  (iii)  $NH_2OH$  (iv)  $N_2H_4$ 
  - (b) Write a detailed note on  $S_N 2$  reactions of alkyl halides.

Chemistry (Objective)  Time Allowed: 20 minutes  PAPER CODE 4488  Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question minor. Use marker or pen to fill the circles. Cutting of filling two or more circles willing the correct circles willing two or more circles willing the correct circles willing the correct circles willing the correct circles will not correcting fluid is not allowed.  1) Which of these polymers is an addition polymer?  (A) Nylon-6.6  (B) Polystyrene  (C) Terylene  (D) Epoxy resin  (D) Saponification  3) Which three elements are needed for the healthy growth of plants?  (A) N. S. P  (B) N. Ca. P  (C) N, P, K  (D) N. K. C  4) Newspaper can be recycled again and again by how many times?  (A) S  (A) S  (A) N. S. P  (B) N. Ca. P  (C) N, P, K  (D) N. K. C  (A) Na' is smaller than (B) Na' is larger than (C) CT (ion) is smaller (D) CT (ion) and CI atom are equal in size of the correct statement.  (A) Na' is smaller than (B) Na' is larger than (C) Ba'  (D) CT (ion) and CI atom are equal in size of the correct statement.  (A) Na' is a mineral of (A) Al (B) Ba (C) S  (A) MC (B) N <sub>2</sub> O (C) Ba'  (D) Mg's  (D) N <sub>2</sub> O (D) Mg's  (D) N <sub>2</sub> O (D) Mg's  (D) N <sub>2</sub> O (D) Mg's  (E) N <sub>2</sub> O (D) Mg's  (D) CT (D) Mg's  (E) CO (D) CT	.0	1219 Warning:- Please write	your Roll No. in the spac	e provided and sign.	Roll No
Time Allowed: - 20 minutes  Note: - You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle infont of that question number. Use marker or pen to fill the circles. Cutting of filling two or more circles will result in zero mark in that question number. Use marker or pen to fill the circles. Cutting of filling two or more circles will result in zero mark in that question. Write PAPER CODE, which is printed on this question paper, on the both sides of the Answer Sheat and fill bubbles accordingly, otherwise the student will be responsible for the situation. Use of fix Remover or white correcting fluid is not allowed.  Q.1  Which of these polymers is an addition polymer?  (A) Nylon-6.6  (B) Polystyrene  (C) Terylene  (D) Epoxy resin  Depoxy resin  The reaction between flat and NaOH is called  (A) Esterification  (B) Hydrogenolysis  (C) Fermentation  (D) Saponification  Which tince elements are needed for the healthy growth of plants?  (A) N, S, P  (B) N, Ca, P  (C) N, P, K  (D) N, K, C  (D) N, K, C  (E) Newspaper can be recycled again and again by how many times?  (A) S atom Na atom  (A) Na' is snaller than (B) Na' is larger than (C) CT (ion) is smaller (D)  CT (ion) and CI than CI atom  atom are equal in size  (A) Ng' is smaller than (B) Na' is larger than (C) Da' (D) Mg' 2  Tincal is a mineral of  (A) Na' (B) Cx <sup>2+</sup> (C) Na <sup>2-</sup> (D) Mg' 2  Tincal is a mineral of  (A) Na' (B) Cx <sup>2-</sup> (C) Na <sup>2-</sup> (D) Mg' 3  Tincal is a mineral of  (A) BC (B) HCtO (D) Ba' (C) NO (D) Mg' 3  Tincal is a mineral of  (A) BC (C) NO (D) CC (D) Mg' 3  (D) CC (D) Mg' 3  Tincal is a mineral of  (A) Esterification (B) Hzto (C) Acide (D) Citacin (D) C	D.F.			6	*
Notes. You have four choices for each objective type question as A, B, C and D. The choice which you think is cornect; fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting of filling two or more circles will result in zero mark in that question. Write PAPER CODE, which is printed on this question paper, on the both sides of the Answer Sheet and fill bubbles accordingly, otherwise the student will be responsible for the situation. Use of Ink Remover of Q-1  1) Which of these polymers is an addition polymer?  (A) Nylon-6.6 (B) Polystyrene (C) Terylene (D) Epoxy resin (A) Polystification (B) Hydrogenolysis (C) Fermentation (D) Saponification (A) Esterification (B) Hydrogenolysis (C) Fermentation (D) Saponification (D) Saponification (D) Saponification (A) No. S. P. (B) N. Ca. P. (C) N. P. K. (D) N. K. C. (D) N. K. C. (E) (E) C. (E) C. (E) C. (E) (E) C. (E) (E) C. (E) (E) C. (E	Ma.		•	•	
that circle in front of that question number. Use marker or pen to fill the circles. Cutting of filling two or more crucles will result in zero mark in that question. Write PAPER CODE, which is printed on this question paper, on the both sides of the Answer Sheet and fill bubbles accordingly, otherwise the student will be responsible for the situation. Use of Ink Remover or Q.1  1) Which of these polymers is an addition polymer?  (A) Nylon-6.6  2) The reaction between fat and NaOH is called  (A) Esterification (B) Hydrogenolysis (C) Fermentation (D) Saponification (A) Esterification (B) Hydrogenolysis (C) Fermentation (D) Saponification (D) Saponification (D) Which three elements are needed for the healthy growth of plants?  (A) N, S, P (B) N, Ca, P (C) N, P, K (D) N, K, C (A) N (B) A (C) (B) 4 (C) 3 (D) 2  (A) Mark the correct statement.  (A) Mar's is smaller than (B) Na's is larger than (C) CT (ion) is smaller (D) CT (ion) and CI atom Na atom Na atom than CI atom than CI atom Atom Na atom Na atom (C) N (D) N					
1) Which of these polymers is an addition polymer? (A) Nylon-6.6 (B) Polystyrene (C) Terylene (D) Epoxy resin 2) The reaction between fat and NaOH is called (A) Esterification (B) Hydrogenolysis (C) Fermentation 3) Which three elements are needed for the healthy growth of plants? (A) N, S, P (B) N, Ca, P (C) N, P, K (D) N, K, C 4) Newspaper can be recycled again and again by how many times? (A) 5 (B) 4 (C) 3 (D) 2  5) Mark the correct statement. (A) Na' is smaller than (B) Na' is larger than (C) CT (ion) is smaller (D) CT (ion) and CI atom Na atom Na atom than CI atom (A) Na' (B) Cx <sup>3+</sup> (C) Ba <sup>2+</sup> (D) Mg <sup>2+</sup> 7) Tincal is a mineral of (A) AI (B) Cx <sup>3+</sup> (C) Ba <sup>2+</sup> (D) Mg <sup>2+</sup> 7) Tincal is a mineral of (A) AI (B) B (A) NO (B) N <sub>2</sub> O (C) NO <sub>2</sub> (D) N <sub>2</sub> O <sub>4</sub> 9) Which is the strongest acid? (A) HCTO (B) HCEO <sub>2</sub> (C) HCEO <sub>3</sub> (D) HCEO <sub>4</sub> 10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH <sub>3</sub> CI (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> 13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acctaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (A) Formicacid (B) Acctaldehyde (C) Benzaldehyde (D) Butanoic acid		that circle in front of that question not result in zero mark in that question. V Answer Sheet and fill bubbles accord	umber. Use marker or pen to Vrite PAPER CODE, which	o fill the circles. Cutting or fi is printed on this question p vill be responsible for the situ	lling two or more circles will aper, on the both sides of the
2) The reaction between fat and NaOH is called  (A) Esterification (B) Hydrogenolysis (C) Fermentation (D) Saponification  3) Which three elements are needed for the healthy growth of plants?  (A) N, S, P (B) N, Ca, P (C) N, P, K (D) N, K, C  4) Newspaper can be recycled again and again by how many times?  (A) 5 (B) 4 (C) 3 (D) 2  5) Mark the correct statement.  (A) Na' is smaller than (B) Na' is larger than (C) CT (ion) is smaller (D) CT (ion) and CI atom Na atom Na atom than CI atom are equal in size (N) Na' (B) Cs² (C) Ba² (D) Mg²*  7) Tincal is a mineral of (A) AI (B) B  8) Laughing gas is chemically (A) NO (B) N2O (C) NO2 (D) N2O4  9) Which is the strongest acid?  (A) HCIO (B) HCLO2 (C) HCLO3 (D) HCLO4  10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) Ethene (C) Ethane  14) Grignard's reagent is reactive due to (A) The presence of (B) Ethene (C) Ethane  14) Grignard's reagent is reactive due to (A) The presence of (B) Ethene (C) Ethane  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldechyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		1) Which of these polymers is	an addition polymer?		
(A) Esterification (B) Hydrogenolysis (C) Fermentation (D) Saponification (A) N, S, P (B) N, Ca, P (C) N, P, K (D) N, K, C  4) Newspaper can be recycled again and again by how many times? (A) 5 (B) 4 (C) 3 (D) 2  5) Mark the correct statement. (A) Na* is smaller than (B) Na* is larger than (C) CI* (ion) is smaller (D) CI* (ion) and CI atom atom Na atom than CI atom than CI atom than CI atom (A) Na* is maller than (B) Cs²* (C) Ba²* (D) Mg²*  7) Tincal is a mineral of (A) AI (B) B (D) Cy²* (C) NO2 (D) N₂O4  8) Laughing gas is chemically (A) NO (B) N₂O (C) NO2 (D) N₂O4  9) Which is the strongest acid? (A) IICŁO (B) HCŁO2 (C) HCŁO3 (D) HCŁO4  10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH,CI (B) CCI, (C) CH₂CI2 (D) CHCI3  13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond (D) Trimethylacetaldehyde  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetic acid (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formicacid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid				(C) Terylene	(D) Epoxy resin
3) Which three elements are needed for the healthy growth of plants? (A) N, S, P (B) N, Ca, P (C) N, P, K (D) N, K, C  4) Newspaper can be recycled again and again by how many times? (A) 5 (B) 4 (C) 3 (D) 2  5) Mark the correct statement. (A) Na* is smaller than (B) Na* is larger than (C) Cl* (ion) is smaller (D) Cl* (ion) and Cl atom are equal in size (D) Mg2**  7) Tincal is a mineral of (A) Na* (B) Cx2* (C) Ba2* (D) Mg2**  7) Tincal is a mineral of (A) NO (B) N <sub>2</sub> O (C) NO <sub>2</sub> (D) N <sub>2</sub> O <sub>4</sub> 9) Which is the strongest acid? (A) HCLO (B) HCLO <sub>2</sub> (C) HCLO <sub>3</sub> (D) HCLO <sub>4</sub> 10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism (D) Functional group isomerism (D) Ethyne  12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom (C-Mg bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetic acid (C) Benzoic acid (D) Butanoic acid					(D) C 'C' '
(A) N, S, P (B) N, Ca, P (C) N, P, K (D) N, K, C  1 Newspaper can be recycled again and again by how many times? (A) 5 (B) 4 (C) 3 (D) 2  5 Mark the correct statement. (A) Na' is smaller than (B) Na' is larger than (C) Cl' (ion) is smaller (D) Cl' (ion) and Cl atom atom atom than Cl atom than Cl atom atom are equal in size (A) Na' (B) Cs <sup>2+</sup> (C) Ba <sup>2+</sup> (D) Mg <sup>2+</sup> 7) Tincal is a mineral of (A) Al (B) B (A) NO (B) NsO (C) NO2 (D) NsO (D) NsO (D) NsO (D) NsO (D) The total number of transition elements is (A) 10 (B) HClO (B) HClO (B) HClO (C) HClO (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism (D) Functional group isomerism (D) Functional group isomerism (D) Ethyne (A) The presence of (B) Ethene (C) Ethane (D) Ethyne (D) The polarity of halogen atom atom C-Mg bond Mg-X bond (D) Trimethyl-acetaldehyde (A) Formaldehyde (B) Acetaldehyde (C) Benzoic acid (D) Butanoic acid					(D) Saponification
4) Newspaper can be recycled again and again by how many times?  (A) 5  Mark the correct statement.  (A) Ma* is smaller than Na atom N		A CONTRACT OF THE PROPERTY OF			(D) M I/ (1
(A) 5 (B) 4 (C) 3 (D) 2  5) Mark the correct statement.  (A) Na* is smaller than (B) Na* is larger than (C) Cl* (ion) is smaller (D) Cl* (ion) and Cl atom are equal in size  (A) Na* is a mineral of (A) Na* (B) Cs** (C) Ba** (D) Mg**  (A) Na (B) B  (A) Al (B) B  (A) NO (B) N2O (C) NO2 (D) N2O4  (D) Mclo  (A) HClO (B) HClO2 (C) HClO3 (D) HClO4  (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism (D) Functional group isomerism (A) CH3Cl (B) BCCl4 (C) CH2Cl2 (D) CHCl3 (D) Functional group isomerism (D) Functional group isomerism (D) Functional group isomerism (D) Ethyne  (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom (A) The solution of which acid is used for the seasoning of food? (A) Formal acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid			( )	. ,	(D) N, K, C
5) Mark the correct statement.  (A) Na* is smaller than (B) Na* is larger than (C) CT (ion) is smaller (D) CI (ion) and CI atom atom atom value of heat of hydration? (A) Na* (B) Cs²* (C) Ba²* (D) Mg²*  7) Tincal is a mineral of (A) Al (B) B (B) N2O (C) NO2 (D) N2O4  9) Which is the strongest acid? (A) HCLO (B) HCLO2 (C) HCLO3 (D) HCLO4  10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism  12) Formula of Chloroform is (A) CH,Cl (B) Ethene (C) Ethane  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde  (D) Butanoic acid					(D) 2
(A) Na* is smaller than (B) Na* is larger than (C) Cl* (ion) is smaller (D) Cl* (ion) and Cl atom atom atom than Cl atom (A) Na* (B) Cs** (C) Ba** (D) Mg**  (A) Na* (B) Cs** (C) Ba** (D) Mg**  7) Tincal is a mineral of (A) Al (B) B (A) NO (B) N <sub>2</sub> O (C) NO <sub>2</sub> (D) N <sub>2</sub> O <sub>4</sub> 9) Which is the strongest acid? (A) HC*O (B) HC*O <sub>2</sub> (C) HC*O <sub>3</sub> (D) HC*O <sub>4</sub> 10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism  12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> 13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (A) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom atom (C-Mg bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Butanoic acid		,	` '	(C) 3	(D) Z
Na atom Na atom than Cl atom atom are equal in size  (N) Which ion will have the maximum value of heat of hydration?  (A) Na* (B) Cs²* (C) Ba²* (D) Mg²*  (A) Al (B) B  (Laughing gas is chemically (A) NO (B) N₂O (C) NO₂ (D) N₂O₄  (C) NO₂ (D) N₂O₄  (D) N₂O₄  (E) N₂O₄ (C) NO₂ (D) N₂O₄  (E) N₂O₄ (C) NO₂ (D) N₂O₄  (E) N₂O₄  (E) HCℓO₃ (D) HCℓO₃ (D) HCℓO₄  (E) HCℓO₃ (D) HCℓO₃ (D) HCℓO₄  (E) HCℓO₃ (D) HCℓO₄  (E) HCℓO₃ (D) Functional group isomerism (C) Metamerism (C) Metamerism (D) Functional group isomerism (E) Formula of Chloroform is (A) CH₃Cl (B) CCl₁ (C) CH₂Cl₂ (D) CHCl₃  (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond  (A) Acid (B) Base (C) Acid as well as base (D) Neutral  (A) Formaldehyde (B) Acetiadehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  (A) Formaldehyde (B) Acetic acid (C) Benzoic acid (D) Butanoic acid				(C)	(D) at (1) 1 at
6) Which ion will have the maximum value of heat of hydration?  (A) $Na^+$ (B) $Cs^{2+}$ (C) $Ba^{2+}$ (D) $Mg^{2+}$ 7) Tincal is a mineral of (A) $Al$ (B) B  8) Laughing gas is chemically (A) NO (B) $N_2O$ (C) $NO_2$ (D) $N_2O_4$ 9) Which is the strongest acid? (A) $IIC^*IO$ (B) $IIC^*IO$ (B) $IIC^*IO$ (D)				(C) $CI^{-}$ (ion) is smaller	(D) Cl (ion) and Cl
(A) $Na^*$ (B) $Cs^{2+}$ (C) $Ba^{2+}$ (D) $Mg^{2+}$ 7) Tincal is a mineral of (A) $Al$ (B) B  8) Laughing gas is chemically (A) NO (B) $N_2O$ (C) $NO_2$ (D) $N_2O_4$ 9) Which is the strongest acid? (C) $HClO_3$ (D) $HClO_4$ 10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism (A) $CH_3CI$ (B) $CCI_4$ (C) $CH_2CI_2$ (D) $CHCI_4$ 13) Which compound is the most reactive one? (A) Benzenc (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond (D) The polarity of Mg-X bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (D) Butanoic acid					atom are equal in size
7) Tincal is a mineral of (A) Al (B) B  8) Laughing gas is chemically (A) NO (B) N2O (C) NO2 (D) N2O4  9) Which is the strongest acid? (A) HCtO (B) HCtO2 (C) HCtO3 (D) HCtO4  10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH3Cl (B) CCl4 (C) CH2Cl2 (D) CHCl3  13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid					(D) 14.2+
(A) Al (B) B  1. Laughing gas is chemically (A) NO (B) N <sub>2</sub> O (C) NO <sub>2</sub> (D) N <sub>2</sub> O <sub>4</sub> 9) Which is the strongest acid? (A) IIC'lO (B) HClO <sub>2</sub> (C) HClO <sub>3</sub> (D) HClO <sub>4</sub> 10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> 13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond (D) The polarity of Mg-X bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		$(\Lambda)$ $Na^+$	(B) $C^{2}$	(C) $Ba^{2+}$	$(D)$ $Mg^2$
8) Laughing gas is chemically (A) NO (B) N <sub>2</sub> O (C) NO <sub>2</sub> (D) N <sub>2</sub> O <sub>4</sub> 9) Which is the strongest acid? (A) HC+O (B) HC+O <sub>2</sub> (C) HC+O <sub>3</sub> (D) HC+O <sub>4</sub> 10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> 13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom (C-Mg bond (D) The polarity of Mg-X bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde (C) Benzoic acid (D) Butanoic acid		7) Tincal is a mineral of			(D) G
(A) NO (B) N <sub>2</sub> O (C) NO <sub>2</sub> (D) N <sub>2</sub> O <sub>4</sub> 9) Which is the strongest acid? (A) HClO (B) HClO <sub>2</sub> (C) HClO <sub>3</sub> (D) HClO <sub>4</sub> 10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> 13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid				4CE 51 34	(D) C
(A) HClO (B) HClO2 (C) HClO3 (D) HClO4  10) The total number of transition elements is (A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH3Cl (B) CCl4 (C) CH2Cl2 (D) CHCl3  13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom (C-Mg bond (D) Mg-X bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		,	(B) N <sub>2</sub> O	(C) NO <sub>2</sub>	(D) $N_2O_4$
(A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> 13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom (C-Mg bond) (D) The polarity of halogen atom atom (C-Mg bond) (D) Neutral  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		A CONTRACT OF THE PROPERTY AND THE PROPE		(C) <i>HClO</i> <sub>3</sub>	(D) $HC\ell O_4$
(A) 10 (B) 14 (C) 40 (D) 58  11) Ethers show the phenomenon of (A) Position isomerism (B) Cis-trans isomerism (C) Metamerism (D) Functional group isomerism  12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> 13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom (C-Mg bond) (D) The polarity of halogen atom atom (C-Mg bond) (D) The polarity of Mg-X bond  15) According to Lewis concept ethers behave as (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		10) The total number of transiti	on elements is		
(A) Position isomerism (B) Cis-trans isomerism (C) Metamerism  (D) Functional group isomerism  (12) Formula of Chloroform is (A) CH <sub>3</sub> Cl (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond  (A) Acid (B) Base (C) Acid as well as base (D) Neutral  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid				(C) 40	(D) 58
isomerism  12) Formula of Chloroform is  (A) $CH_3Cl$ (B) $CCl_4$ (C) $CH_2Cl_2$ (D) $CHCl_4$ 13) Which compound is the most reactive one?  (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to  (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond Mg-X bond  15) According to Lewis concept ethers behave as  (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid				second and and	San
(A) CH <sub>3</sub> Cl (B) CCl <sub>4</sub> (C) CH <sub>2</sub> Cl <sub>2</sub> (D) CHCl <sub>3</sub> 13) Which compound is the most reactive one? (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond Mg-X bond  15) According to Lewis concept ethers behave as (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food? (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid			(B) Cis-trans isomerism	n (C) Metamerism	( )
13) Which compound is the most reactive one?  (A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to  (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond  15) According to Lewis concept ethers behave as  (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid			(ABAN) (Include	(6) 661	(D) and
(A) Benzene (B) Ethene (C) Ethane (D) Ethyne  14) Grignard's reagent is reactive due to  (A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond Mg-X bond  15) According to Lewis concept ethers behave as  (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		(A) $CH_3Cl$	(B) $CCI_4$	$(C) CH_2Cl_2$	(D) $CHCl^3$
(A) The presence of (B) The presence of Mg (C) The polarity of halogen atom atom C-Mg bond Mg-X bond  15) According to Lewis concept ethers behave as  (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		(A) Benzene	(B) Ethene	(C) Ethane	(D) Ethyne
halogen atom atom C-Mg bond Mg-X bond 15) According to Lewis concept ethers behave as  (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid			ive due to		(D) T11
15) According to Lewis concept ethers behave as  (A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid					
(A) Acid (B) Base (C) Acid as well as base (D) Neutral  16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid				C-Ivig bond	Mg-A bollu
16) Cannizzaro's reaction is not given by  (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		15) According to Lewis concep	ot ethers behave as		
(A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethylacetaldehyde  17) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid			*****	(C) Acid as well as base	(D) Neutral
(A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) acetaldehyde (E) The solution of which acid is used for the seasoning of food?  (A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		16) Cannizzaro's reaction is no	ot given by		
(A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		(A) Formaldehyde	(B) Acetaldehyde	(C) Benzaldehyde	/
(A) Formic acid (B) Acetic acid (C) Benzoic acid (D) Butanoic acid		17) The solution of which acid	is used for the seasoning	g of food?	
<b>1281</b> 1219 8500 <b>(4)</b>					(D) Butanoic acid
			<b>1281</b> 1219 -	- 8500 (4)	



## (For all Sessions)

## 1

4

## Chemistry (Essay Type)

Time: 2:40 Hours Marks: 68 Section - I 2- Write short answers of any eight parts from the following. 2 x 8 = 16 i. How do you justify the position of hydrogen at the top of VIIA group? ii. Why does metallic character increase from top to bottom in a group of metals? iii. Why does lime water turn milky with CO₂ but becomes clear with excess CO₂? iv. Give equations to represent the given reaction. Borax is heated with CuO. v. NO<sub>2</sub> is strong oxidizing agent, prove it with two examples. vi. P2Os is a powerful dehydrating agent, show it with two examples. vii. What are Silicones? viii. What are Silicates? ix. Write four uses of HNO... x. What is Biosphere? xi. What is BOD? xii. What are Isomers? Write isomers of pentane. 3- Write short answers of any eight parts from the following.  $2 \times 8 = 16$ i. How acid and base catalyses the reactivity of carbox Write two examples of Monodentate ligands. Write correct names of compounds by I.U.P.A.C system. (A) 4-methyl pentane (B) 3,3,5-Trimethyl hexane iv. Write effect of branching on melting point of alkanes. v. What informations do we get from x-ray analysis of benzene. vi. Convert (a)  $C_3H_2Cl \Rightarrow CH_3 - CH = CH_2$  (b)  $C_3H_2Ch \Rightarrow CH_3 - CH_2 - CH_3OH$ vii. Write down structures of (a) Vinyl alcohol (b) Lactic acid viii. Point out difference between symmetric and unsymmetric ehter. ix. Write chemistry of chromyl chloride test. x. White four uses of farmaldehyde. xi. Draw structures of (a) Alanine (b) Valine xii. Draw structures of Dimer of Carboxylic acid. 4- Write short answers of any six parts from the following.  $2 \times 6 = 12$ i. What is meant by degree of polymerization. Give an example. ii. Write different stages in the manufacture of cement by wet process. iii. Give trend of oxidizing power of halogens. Write any two factors on which oxidizing power of halogens depends. iv. Write main raw materials used in the production of pulp and paper in Pakistan. v. Define saponification number and iodine number of a fat or an oil. vi. How are polyamide resins prepared? Give an example. vii. Write any two applications of noble gases. viii. Write any two methods of preparation of chlorinedioxide. ix. Write any two essential qualities of a good fertilizer. Section - II E: Answer any three questions from the following. 8x3=24 5.(a) Discuss the position of hydrogen over IA and VII/A group of periodic table. 4 (b) Explain the preparation of Na metal by Down cell. 6.(a) What do you mean by corrosion. Explain electrochemical theory in detail (b) Discuss in detail any two components of the/environment. 7.(a) Define Isomerism. Explain position isomerism and functional group isomerism with one example each. 4 (b) Discuss atomic orbital treatment of Benzene. 8.(a) Explain free radical mechanism for the reaction of chlorine with methane in the presence of Sunlight. (b) Write down important physical properties and uses of phenols. How Bakelite is prepared from it (Phenol)? 9.(a) How will you make the following conversions from ethyl bromide? i. Propane ii. Propanoic acid iii. Ethene iv. Ethyl cyanide

(b) Describe the mechanism of aldolcondensation reaction? Why does formaldehyde not give this reaction? 634-012-A-

to be filled in by the candidate.

(For all Sessions)

Paper Code	8	4	8	5	
------------	---	---	---	---	--

Chemistry (Objective Type)

I 2/6 5 / Jol 2019

							$\wedge$
Т	ime: 17 Minutes						/ `
		alle	estions on objective answer	or oh	oot previded C	.,	Marks: 20 le answers A,B,C & D to each
qu	estion are given.Which an	swer	Vou consider correct fill t	he c	orresponding circle A	SSID	le answers A,B,C & D to each or D given in front of each
qu	estion with Marker or pen	ink c	on the answer sheet provide	ded.	orresponding circle A	,6,0	by D given in front of each
			access reverses and a con-				
	_					/	
1.1.	For which mechanism, th		\	ie?			
12	(A) E1 and E2		E2 and S <sub>x</sub> 2	(C)	S <sub>N</sub> 1 and E2	(D)	E1 and S <sub>N</sub> 1
2.	Ethanol can be converted	d into	ethanoic acid by:\		/		
	(A) Hydrogenation		Hydration	(C)	Oxidation /	(D)	Fermentation
3.	The carbon atom of a car		\		_		
			SP³ hybridized		SP hybridized /	(D)	dSP <sup>2</sup> hybridized
9.	Which reagent is used to			ohol			
	(A) $H_2/N_i$	(B)	$H_2/P_t$	(6)	$H_2/Fe$	(D)	$LiAlH_A$
5.	Which one of the following		/ 4 6	. /	/Fe	(5)	4
	(A) nylon-6,6		polystyrene		terylene	(D)	epoxy resin
6.	Micronutrients are require			(-)	is in the second of the second	(0)	epoxy resin
	(A) 4-40 gm		6-200 kg	(C)	6-200 gm	(D)	4-40 kg
7.	Peroxyacetylnitrate (PAN)				\	(0)	4-40 kg
	(A) eyes		ears		stomach	(D)	nose
8.	Newspaper can be recycle					(0)	nose
	(A) 4	(B)		(C)	_ /	(D)	2
9.	Keeping in view the size				/	(0)	3
	(A) Mg>Sr		Ba>Mg		Lu>Ce	(D)	CI>I
10.	Tincal is a mineral of:	, ,		(-)	Ed. 00	(0)	CIP1
	(A) Al	(B)	Si	(C)	В	(D)	C
	Laughing gas is chemica			(-/		(0)	O
	(A) NO		NO <sub>2</sub>	(C)	$N_2O_4$	(D)	N,O
12.	Which one of the followin						N <sub>2</sub> O
	(A) HF		HCI		HBr	(D)	нт
13.	Which one of the followin					(5)	,
			Potassium sulphate		Zinc sulphate	(D)	Parium aulahata

14. Which one of the following is a typical transition metal?

(D) Barium sulphate

15. Which set of hybrid orbital has planar triangular shape?

(B) Y

(B) SP2

(C) SP3

(C) Co

(D) dSP2

(D) Ra

16. Formula of chloroform is:

(A) CHCI<sub>3</sub> (B) CH<sub>2</sub>Cl<sub>2</sub>

(D) CCI4

17. During nitration of benzene, the acitive nitrating agent is:

(A)  $NO_3$ 

(A) Sc

(B)  $NO_{2}^{+}$ 

(C)  $NO_{5}^{-}$ 

(C) CH<sub>3</sub>CI

(D)  $HNO_3$