

कक्ष - 047

CHEMISTRY PAPER - II (NEW) : CH-112 Organic & Inorganic Chemistry

P.	P	ad	es	:	3
		4	00		•

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Time: Two Hours

Max. Marks: 40

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- 1. Do not write anything on question paper except Seat No.
- 2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
- 3. Students should note, no supplement will be provided.
- 4. All questions are compulsory.
- 5. Figures to right indicate full marks.

)	Acetylene is an example of					
	a)	sp ³ hybrid molecule	b)			
	c)	sp hybrid molecule	d)	sp ³ d ² hybrid molecule		
i)	K ₂ C	r ₂ O ₇ is strong				
		Reducing agent	b)	Oxidising agent		
	c)	Dehydrating agent	d)	None of these.		
ii)	In w	hich one of the following a	atom is	negatively charged		
	a)	Carbanion	b)	Carbonium ion		
	c)	Carbocation	d)	Free radical.		
v)	Ethe	er when exposed to air an	d light	forms		
	a)	Oxide	b)			
	c)	Alcohol	d)	Alkanes.		
v)	Whi	ch one of the following is	not an	alcohol?		
	a)	CH ₃ -OH	b).	CH ₃ -CH ₂ -OH		
	c)	C ₆ H ₅ -CH ₂ -OH	d)	CH₃-C-OH.		
vi)	The chief constituent of vinegar is					
vi)	The	cniet constituent of vineo	iai is			
vi)	The a)	cnief constituent of vineg	b)	Acetic acid		

vii)	The interorbital angle in 'sp' hy a) 120° c) 109.5°	bridiza b) d)	ation is 180° 160°					
VIII)	Which of the following is basic a) NH ₄ OH & NH ₄ Cl	buπer b)						
			일 없었다. 그러 그러는 그렇는 얼마나 얼마나 그렇게 먹었다.					
	c) HCI & NaOH	d)	NH₄OH & CH₃COOH					
ix)	According to Lewis concept base is							
	a) Electron pair acceptorc) Proton donor		Electron pair donor Proton acceptor.					
x)	pH of solution is defined as by the expression							
	a) log[H ⁺]	b)	$\log \frac{1}{[H^+]}$					
	1							
	c) $\frac{1}{\log(H^+)}$	d)	$-\log \frac{1}{[H^+]}$					
Atte	mpt any four of the following.		8					
i)	Define the term Homolysis and Heterolysis.							
ii)	What are cycloalkanes.							
iii)	Acetylene reacts with cold alkaline KMnO ₄ .							
iv)	Explain ionic product of water.							
v)	Define addition reaction with suitable example.							
vi)	Define polar and non - polar solvent with examples.							
Ans	wer any two of the following.		8					
i)	What is inductive effect ? Explain +I and -I effect.							
ii)	What is action any two of following rent on propylene.							
	a) B_2H_6/H_2O_2 b) H_2/pt							
	c) H^+/H_2O							

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- iii) Write any four functional group of the following
 - a) Carboxylic acid
- b) Aldehyde

c) Ether

d) Ester

- e) Alkynes.
- 4. Attempt any two of the following.

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- A) Define the term acid and base according to Arrhenius.
 - i) Concept with suitable example.
 - ji) Give the properties of Solvent.
 - iii) Give the IUPAC name of the following any three.

 $\begin{array}{c} \text{CH}_3 \\ \mid \\ \text{b)} \quad \text{CH}_3 - \text{C} - \text{CH}_3 \\ \mid \\ \text{OH} \end{array}$

COOH.

d)

B) Define the term pyrolysis.

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5. Answer any one of the following.

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- i) Explain sp³ hybridization, with the formation of ethane molecule.
- ii) Define term buffer, and types of buffer, Give the mechanism of acidic and basic buffer.
