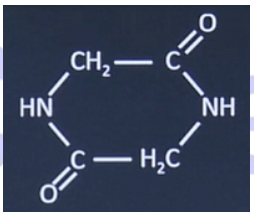
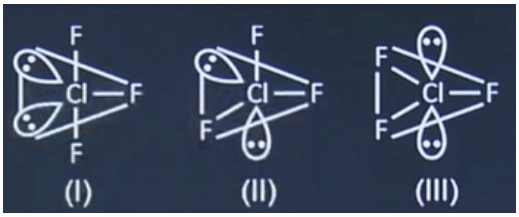
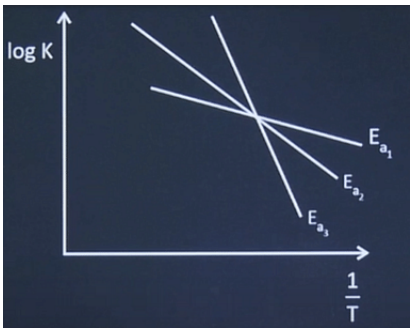
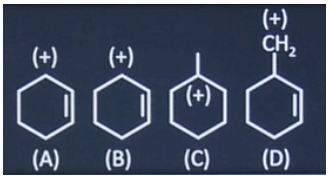
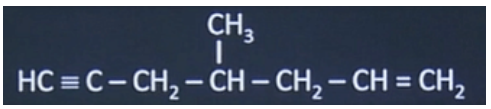
JEE Main 4 April 2025 Shift 2

Chemistry Question Paper with Answer Key

Q.No.	Question	Answers
1	Maximum IE and minimum IE of group 13 elements	B, In
2	Total number of electrons in chromium (Z = 24) for which the value of azimuthal quantum number (l) is 1 and 2.	17
3	x is a peptide which is hydrolysed to 2 amino acids y and z. y when react with HNO2 gives lactic acid. z when heated gives cyclic structure as below:  y and z respectively are:	Alanine and Glycine
4	**Statement-I:** ClF_3 has 3 possible structures **Statement-II:** III is most stable structure due to least lp-bp repulsion. 	Statement-I is correct and statement-II is incorrect

5	Consider the following graph between Rate Constant (K) and 1/T. 	$E_{a_3} > E_{a_2} > E_{a_1}$
6	Arrange the following carbocation in decreasing order of their stability 	A > C > B > D
7	Consider the following complex ions (a) $Ni(CO)_4$ (b) $[Ni(CN)_6]^{2-}$ (c) $[FeF_6]^{3-}$ (d) $[CoF_6]^{3-}$ Which of the following order is correct for their unpaired electrons	c > d > a = b
8	The correct IUPAC name of the following compound is: 	4-Hydroxyhept-1-en-6-yne
9	Given below are two statements: **Statement-I:** Aqueous KOH gives elimination reaction as major product always. **Statement-II:** Alcoholic KOH eliminates H^+ from ß-carbon atom	Statement-l is incorrect and statement-ll is correct

	In the light of the above statements, choose the correct answer from the options given below:	
10	Consider the following zero order reaction : A → Products Half-life of the reaction is 1 hr if initial concentration of the reactant is 2 mol/L. Find the half-life of the reaction in minutes if the initial concentration of the reaction is 0.5 mol/L.	15 mins.
11	If x mg of $Mg(OH)_2$ is added in 1 L of solution to make a solution with pH = 10, then find the value of x. [Given: MW of $Mg(OH)_2$ = 58 g/mol] Assume $Mg(OH)_2$ dissociates completely in water.	3