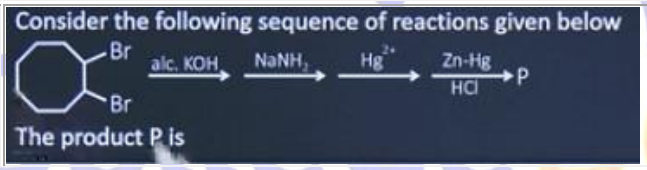
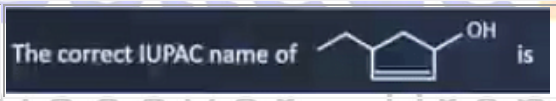
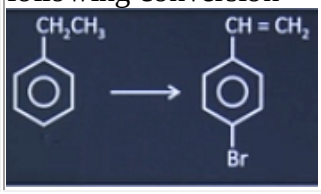
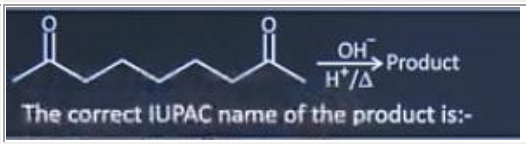
JEE MAIN 8 APRIL 2025 SHIFT 2

CHEMISTRY QUESTION PAPER WITH ANSWER KEY

Q.No.	Question	Answers
1	Consider the last electron of element having atomic on. 9 & choose correct option	Sum of total nodes =1
2	Which of the following has sp^3d^2 hybridisation? (i) $(NICI_4]^{2-}$ (ii) $[Ni(CO)_4]$ (iii) SF_6 (iv) $[NI(CN_4)]^{2-}$	SF_6
3	Atomic number of element with lowest first ionisation enthalpy is	87
4	Consider the following statement Statement 1: H_2Se is more acidic than H_2Te Statement II: H_2Se has higher bond dissociation Enthalpy In light of above statement, choose correct option	Statement-I is true & Statement-Il is false
5		
6		4-ethylcyclopent-2-en-1-ol
7	Correct decreasing order of spin only magnetic moment values is	$Cr^{2+} > Cr^{3+} > Cu^{2+} > Cu^{+}$
8	The correct sequence of reagents to the added for the following conversion 	Br^{+}/FeCl3; Cl_2/Δ; alc. KOH
9	For a first order reaction, the ratio of time required is, if $t,/t_2$ is time consumed when reactant reaches 1/4th of initial cone and t_2 is the time when it reaches 1/8 of 4 initial concentration	2/3
10		1-(2-methylcyclohexene-1-yl) ethanone
11	An aqueous solution of 0.1 M HA shows depression in freezing point of 0.2°C. If K, (H_2O) = 1.86K kg mol^{-1} and	$5.625*10^{-4}$

	assuming molarity = molality, find the dissociation constant of HA.	
12	Which of the following solution can form minimum boiling azeotrope? (i) $C_2H_2OH + H_2O$ (ii) n-heptane + n-hexane (iiI) $CH_3COOH + C_5H_5N$ (iv) $C_2H_3Br + C_2H_5l$	$C_2H_2OH + H_2O$