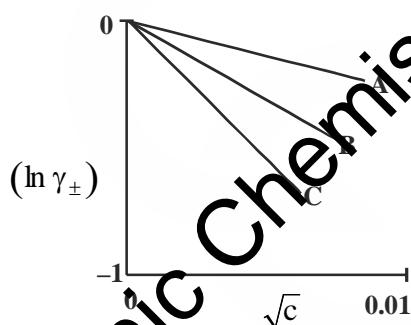


142. The condensation of a hydroxy acid produces a polyester with the probability of linkage at both ends being p . The mole fraction of k -mer chain formation is
 (a) p^k (b) $p(1-p)^{k-1}$ (c) $p^{k-1}(1-p)$ (d) p^{k-1}

143. In simple molecular orbital theory of hydrogen molecule, bonding σ_g and anti-bonding σ_u molecular orbitals are constructed as linear combinations of atomic orbitals of two hydrogen atoms. The spatial part of a purely covalent singlet wavefunction is obtained by
 (a) $\sigma_g^2 + \sigma_u^2$ (b) σ_g^2 (c) $\sigma_g^2 - \sigma_u^2$ (d) $\sigma_g^2 + \frac{1}{2}\sigma_u^2$

144. Two aqueous 1:1 electrolyte systems A and B are at different temperatures T_A and T_B and C_A and C_B concentrations, respectively. Their Debye lengths will be equal if
 (a) $T_A = 2T_B$ and $C_A = 2C_B$ (b) $T_A = 2T_B$ and $C_A = C_B/2$
 (c) $T_A = \sqrt{2}T_B$ and $C_A = 2C_B$ (d) $T_A = 2T_B$ and $C_A = \sqrt{2}C_B$

145. Aqueous solutions of NaCl , CaCl_2 and LaCl_3 show the following plots of logarithms of mean ionic activity coefficient ($\ln \gamma_{\pm}$) vs molar concentration (c)



The correct option is then

	NaCl	CaCl_2	LaCl_3
(a)	C	B	A
(b)	A	B	C
(c)	A	C	B
(d)	C	A	B