141. Conductometric titration of a strong acid with a strong alkali (MOH) shows linear fall of conductance up to neutralization point because of
(a) formation of water
(b) increase in alkali concentration
(c) faster moving H^+ being replaced by slower moving M^+.
(d) neutralization of acid.

142. Find the probability of the link in polymers where average values of links are (A) 10, (B) 50 and (C) 100
(a) (A) 0.99, (B) 0.98, (C) 0.90 (b) (A) 0.98, (B) 0.90, (C) 0.99
(c) (A) 0.90, (B) 0.98, (C) 0.99 (d) (A) 0.90, (B) 0.99, (C) 0.98

143. The stability of lyophobic colloid is the consequence of
(a) van der waals attraction among the solute-solvent adducts
(b) Brownian motion of the colloidal particles
(c) insolubility of colloidal particles in solvent
(d) electrostatic repulsion among double-layered colloidal particles

144. In a conductometric experiment for estimation of acid dissociation constant of acetic acid, the following values were obtained in four sets of measurements.

$1.71\times10^{-5}, 1.77\times10^{-5}, 1.79\times10^{-5}$ and 1.73×10^{5}

The standard deviation of the data would be in the range of
(a) $0.010\times10^{-5} - 0.019\times10^{-5}$ (b) $0.020\times10^{-5} - 0.029\times10^{-5}$
(c) $0.030\times10^{-5} - 0.039\times10^{-5}$ (d) $0.040\times10^{-5} - 0.049\times10^{-5}$

145. Silver crystallizes in face-centered cubic structure. The 2nd order diffraction angle of a beam of X-ray $(\lambda = 1\text{Å})$ of (111) plane of the crystal is 30°. Therefore, the unit cell length of the crystal would be
(a) a = 3.151Å (b) a = 3.273 Å (c) a = 3.034Å (d) a = 3.464 Å