Q1. 22 January Shift 2

Identify the correct statements :

A. Hydrated salts can be used as primary standard.

B. Primary standard should not undergo any reaction with air.

C. Reactions of primary standard with another substance should be instantaneous and stoichiometric.

D. Primary standard should not be soluble in water.

E. Primary standard should have low relative molar mass.

Choose the correct answer from the options given below :

(1) A, B, C and E Only

(2) A, B and E Only

(3) A, B and C Only

(4) D and E Only

Q2. 23 January Shift 2

200 cc of $x \times 10^{-3}$M potassium dichromate is required to oxidise 750 cc of 0.6 M Mohr's salt solution in acidic medium. Here $x =$ ____.

Q3. 24 January Shift 1

X and Y are the number of electrons involved, respectively during the oxidation of $I^-$to I_2 and S^{2-} to S by acidified $K_2Cr_2O_7$. The value of X + Y is ____.

Q4. 24 January Shift 2

One mole of Cl_2(g) was passed into 2 L of cold 2 M KOH solution. After the reaction, the concentrations of Cl^-, $ClO^-$and $OH^-$are respectively (assume volume remains constant)

(1) 0.5M, 0.5M, 1M

(2) 0.75M, 0.75M, 1M

(3) 0.5M, 0.5M, 0.5M

(4) 1M, 1M, 1M

Q5. 28 January Shift 1

500 mL of 1.2 M KI solution is mixed with 500 mL of $0.2MKMnO_4$ solution in basic medium. The liberated iodine was titrated with standard $0.1MNa_2S_2O_3$ solution in the presence of starch indicator till the blue color disappeared. The volume (in L) of $Na_2S_2O_3$ consumed is ____. (Nearest integer)

ANSWER KEYS

1. (3)	**2.** 375	**3.** 12	**4.** (1)	**5.** 3