

Questions with Answer Keys

MathonGo

Q1: 24 Feb (Shift 1) - Numerical

4.5 g of compound A (MW = 90) was used to make 250 mL of its aqueous solution. The molarity of the solution in M is $x \times 10^{-1}$. The value of x is _____. (Rounded off to the nearest integer)

Q2: 24 Feb (Shift 2) - Single Correct

Match List-I with List-II

List- I

(a) Valium

(b) Morphine

(c) Norethindrone

(d) Vitamin B₁₂

List-II

(i) Antifertility drug

(ii) Pernicious anaemia

(iii) Analgesic

(iv) Tranquillizer

(1) (a) – (iv), (b) – (iii), (c) – (ii), (d) – (i)

(2) (a) – (i), (b) – (iii), (c) – (iv), (d) – (ii)

(3) (a) – (ii), (b) – (iv), (c) – (iii), (d) – (i)

(4) (a) – (iv), (b) – (iii), (c) – (i), (d) – (ii)

Q3: 24 Feb (Shift 2) - Numerical

1.86 g of aniline completely reacts to form acetanilide. 10% of the product is lost during purification. Amount of acetanilide obtained after purification (in g) is _____ $\times 10^{-2}$.

Q4: 25 Feb (Shift 1) - Single Correct

Complete combustion of 1.80 g of an oxygen containing compound ($C_xH_yO_z$) gave 2.64 g of CO_2 and 1.08 g of H_2O . The percentage of oxygen in the organic compound is:

(1) 63.53

(2) 53.33

(3) 51.63

(4) 50.33

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Q5: 25 Feb (Shift 1) - Numerical

In basic medium CrO_4^{2-} oxidizes $\text{S}_2\text{O}_3^{2-}$ to form SO_4^{2-} and itself changes into $\text{Cr}(\text{OH})_4^-$. The volume of 0.154M CrO_4^{2-} required to react with 40 mL of $0.25\text{M S}_2\text{O}_3^{2-}$ is ____
(Rounded-off to the nearest integer)

Q6: 26 Feb (Shift 1) - Numerical

The number of significant figures in 50000.020×10^{-3} is

Q7: 26 Feb (Shift 2) - Numerical

The NaNO_3 weighed out to make 50 mL of an aqueous solution containing 70.0mg Na^+ per mL is ____g.
(Rounded off to the nearest integer) [Given: Atomic weight in g mol^{-1} . Na: 23; N : 14; O : 16]

