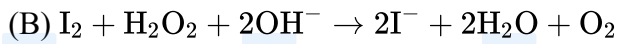
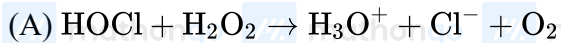


Questions with Answer Keys

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Q1: 24 Feb (Shift 1) - Single Correct

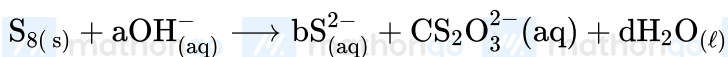


Choose the correct option.

- (1) H_2O_2 act as oxidizing and reducing agent respectively in equations (A) and (B).
- (2) H_2O_2 acts as oxidizing agent in equations (A) and (B).
- (3) H_2O_2 acts as reducing agent in equations (A) and (B).
- (4) H_2O_2 acts as reducing and oxidising agent respectively in equation (A) and (B).

Q2: 24 Feb (Shift 1) - Numerical

The reaction of sulphur in alkaline medium is given below:



The values of 'a' is

Q3: 24 Feb (Shift 2) - Numerical

The formula of a gaseous hydrocarbon which requires 6 times of its own volume of O_2 for complete oxidation and produces 4 times its own volume of CO_2 is C_xH_y . The value of y is

Q4: 25 Feb (Shift 1) - Numerical

0.4 g mixture of NaOH , Na_2CO_3 and some inert impurities was first titrated with $\frac{N}{10}$ HCl using phenolphthalein as an indicator, 17.5 mL of HCl was required at the end point. After this methyl orange was added and titrated. 1.5 mL of same HCl was required for the next end point. The weight percentage of Na_2CO_3 in the mixture is ____ (Rounded-off to the nearest integer)

Q5: 25 Feb (Shift 2) - Numerical

Consider titration of NaOH solution versus 1.25M oxalic acid solution. At the end point following burette readings were obtained.

Questions with Answer Keys

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(i) 4.5ml.

(ii) 4.5ml.

(iii) 4.4 ml

(iv) 4.4 ml

(v) 4.4ml

If the volume of oxalic acid taken was 10.0ml. then the molarity of the NaOH solution is ____ M. (Rounded-off to the nearest integer)

Q6: 26 Feb (Shift 2) - Numerical

In mildly alkaline medium, thiosulphate ion is oxidized by MnO_4^- to "A". The oxidation state of sulphur in "A" is

