

## Questions with Answer Keys

MathonGo

## Q1: 24 Feb (Shift 1) - Single Correct

Given below are two statements :

Statement I : Colourless cupric metaborate is reduced to cuprous metaborate in a luminous flame.

Statement II : Cuprous metaborate is obtained by heating boric anhydride and copper sulphate in a non-

luminous flame. In the light of the above statements, choose the most appropriate answer from the options given below.

(1) Statement I is false but statement II is true.

(2) Statement I is true but Statement II is false.

(3) Both Statement I and Statement II are true.

(4) Both Statement I and Statement II are false.

## Q2: 24 Feb (Shift 2) - Numerical

Among the following allotropic forms of sulphur, the number of allotropic forms, which will show paramagnetism is

(1)  $\alpha$  -sulphur

(2)  $\beta$  -sulphur

(3)  $S_2$  -form

## Q3: 25 Feb (Shift 1) - Single Correct

The correct statement about  $B_2H_6$  is:

(1) All B-H-B angles are of  $120^\circ$ .

(2) Its fragment,  $BH_3$ , behaves as a Lewis base.

(3) Terminal B-H bonds have less p-character when compared to bridging bonds.

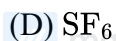
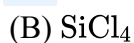
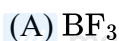
(4) The two B — H — B bonds are not of same length.

## Q4: 25 Feb (Shift 1) - Numerical

## Questions with Answer Keys

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Among the following, the number of halide(s) which is/are inert to hydrolysis is



Q5: 25 Feb (Shift 2) - Single Correct

Given below are two statements :

Statement I :  $\alpha$  and  $\beta$  forms of sulphur can change reversibly between themselves with slow heating or slow cooling.

Statement II : At room temperature the stable crystalline form of sulphur is monoclinic sulphur.

In the light of the above statements, choose the correct answer from the options given below.

(1) Both statement I and statement II are false

(2) Statement I is true but statement II is false

(3) Both statement I and statement II are true

(4) Statement I is false but statement II is true

Q6: 25 Feb (Shift 2) - Single Correct

Which of the following compound is added to the sodium extract before addition of silver nitrate for testing of halogens ?

(1) Nitric acid

(2) Sodium hydroxide

(3) Hydrochloric acid

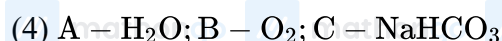
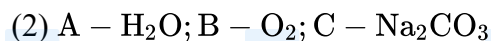
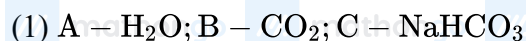
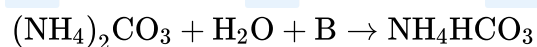
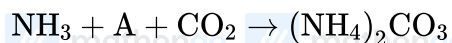
(4) Ammonia

Q7: 26 Feb (Shift 1) - Single Correct

## Questions with Answer Keys

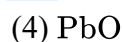
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Find A, B and C in the following reaction :

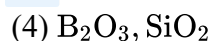
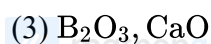
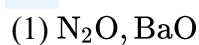
**Q8: 26 Feb (Shift 1) - Single Correct**

Compound A used as a strong oxidizing agent is amphoteric in nature. It is the part of lead storage batteries.

Compound A is :

**Q9: 26 Feb (Shift 2) - Single Correct**

Which pair of oxides is acidic in nature?

**Q10: 26 Feb (Shift 2) - Single Correct**

## Questions with Answer Keys

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Match List-I with List-II.

**List-I**

(a) Sodium Carbonate

(b) Titanium

(c) Chlorine

(d) Sodium hydroxide

**List-II**

(i) Deacon

(ii) Caster-Kellner

(iii) Van-Arkel

(iv) Solvay

Choose the correct answer from the option given below:

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

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

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

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

