

Questions with Answer Keys

MathonGo

Q1: 16 March (Shift 1) - Single Correct

Given below are two statements:

Statement I : Both $\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ and $\text{MgCl}_2 \cdot 8\text{H}_2\text{O}$

undergo dehydration on heating. Statement II : BeO is amphoteric whereas the

oxides of other elements in the same group are

acidic.

In the light of the above statements, choose the

correct answer from the options given below :

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

(2) Both statement I and statement II are false

(3) Both statement I and statement II are true

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

Q2: 16 March (Shift 2) - Single Correct

Statement I : Sodium hydride can be used as an oxidising agent.

Statement II : The lone pair of electrons on nitrogen in pyridine makes it basic.

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) Statement I is false but statement II is true

(4) Both statement I and statement II are true

Q3: 17 March (Shift 1) - Single Correct

The correct order of conductivity of ions in water is :

(1) $\text{Na}^+ > \text{K}^+ > \text{Rb}^+ > \text{Cs}^+$

(2) $\text{Cs}^+ > \text{Rb}^+ > \text{K}^+ > \text{Na}^+$

(3) $\text{K}^+ > \text{Na}^+ > \text{Cs}^+ > \text{Rb}^+$

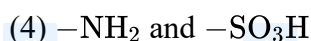
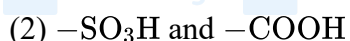
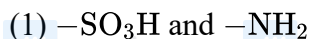
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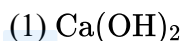
Q4: 17 March (Shift 2) - Single Correct

The functional groups that are responsible for the ion-exchange property of cation and anion exchange resins, respectively, are :



Q5: 17 March (Shift 2) - Single Correct

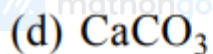
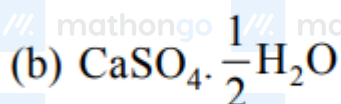
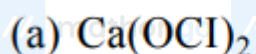
One of the by-products formed during the recovery of NH_3 from Solvay process is :



Q6: 18 March (Shift 1) - Single Correct

Match List-I with List-II

List-I



List-II

(i) Antacid

(ii) Cement

(iii) Bleach

(iv) Plaster of paris

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Choose the most appropriate answer from the options given below:

(1) a – i, b – iv, c – iii, d – ii

(2) a-iii, b-ii, c – iv, d – i

(3) a-iii, b-iv, c – ii, d – i

(4) a-iii, b – ii, c – i, d – iv

Q7: 18 March (Shift 1) - Single Correct

Given below are two statements: One is

labelled as Assertion A and the other labelled

as reason R

Assertion A : During the boiling of water having temporary hardness, $\text{Mg}(\text{HCO}_3)_2$ is converted to MgCO_3

Reason R : The solubility product of $\text{Mg}(\text{OH})_2$ is greater than that of MgCO_3 . In the light of the above

statements, choose the most appropriate answer from the options given

below:

(1) Both A and R are true but R is not the correct explanation of A

(2) A is true but R is false

(3) Both A and R are true and R is the correct explanation of A

(4) A is false and R is also false

Q8: 18 March (Shift 2) - Single Correct

The secondary valency and the number of hydrogen bonded water molecule(s) in $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$,

respectively, are

(1) 6 and 4

(2) 4 and 1

(3) 6 and 5

(4) 5 and 1

Questions with Answer Keys

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Q9: 18 March (Shift 2) - Single Correct

Match list-I with list-II :

List-I**List-II**

(a) Be

(i) Treatment of cancer

(b) Mg

(ii) Extraction of metals

(c) Ca

(iii) Incendiary bombs and signals

(d) Ra

(iv) Windows of X-ray tubes

(v) Bearings for motor engines.

Choose the most appropriate answer the option given below:

(1) a – iv, b – iii, c – i, d – ii

(2) a – iv, b – iii, c – ii, d – i

(3) a – iii, b – iv, c – v, d – ii

(4) a – iii, b – iv, c – ii, d – v

