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Not yet answered

Marked out of 1.00

v2 (latest)

What is oxidation state of phosphorus in P_2O_5?

Select one:

- a. +2
- b. -2
- c. +5
- d. -5

Question 2

Not yet answered

Marked out of 1.00

v1 (latest)

What is oxidation state of sulfur in Na_2SO_4?

Select one:

- a. -2
- b. +6
- c. +5
- d. +4

Question 3

Not yet answered

Marked out of 1.00

v2 (latest)

What is oxidation state of oxygen in Na_2O_2?

Select one:

- a. 2
- b. -1
- c. +4
- d. +5

Question 4

Not yet answered

Marked out of 1.00

v1 (latest)

What is oxidation state of Nitrogen in (NO_3)-?

Select one:

- a. +5
- b. +6
- c. +4
- d. -2

Question 5

Not yet answered

Marked out of 1.00

v1 (latest)

Of the following, which will most likely be an oxidizing agent: Ca, Ag^+, K ?

Select one:

- a. K
- b. Ag^+
- c. Al
- d. Ca

Question 6

Not yet answered

Marked out of 1.00

v2 (latest)

Of the following, which will most likely oxidized: F_2, Cu^{2+}, Na ,Ca^{2+}?

Select one:

- a. Ca
- b. Na
- c. Cu^{2+}
- d. Ca^{2+}

Question 7

Not yet answered

Marked out of 1.00

v1 (latest)

For the following example identify oxidizing agent: $4Al + 3O_2 \rightarrow 2Al_2O_3$

Select one:

- a. neither
- b. O_2
- c. Al^{+3}
- d. both

Question 8

Not yet answered

Marked out of 1.00

v1 (latest)

For the following example identify oxidizing agent: $4P + 5O_2 \rightarrow 2P_2O_5$

Select one:

- a. Al^{+3}
- b. O_2
- c. both
- d. neither

Question 9

Not yet answered

Marked out of 1.00

v1 (latest)

Which of the following transformations is a redox reaction?

Select one:

- a. $NaOH + HCl \rightarrow NaCl + H_2O$
- b. $4P + 5O_2 \rightarrow 2P_2O_5$
- c. $Cu(OH)_2 \rightarrow CuO + H_2O$
- d. $AlCl_3 + 3NaOH \rightarrow Al(OH)_3 + 3NaCl$

Question 10

Not yet answered

Marked out of 1.00

v1 (latest)

Express rate law for reaction: $S(s) + O_{2(g)} \rightarrow S_{O2}$

Select one:

- a. $V = k[SO_2]$
- b. $V = k [S] [O_2]$
- c. $V = k [O_2]$
- d. $V = k [S]$

Question 11

Not yet answered

Marked out of 1.00

v1 (latest)

A solution consists of two parts. What is the name of the part, that is dissolved?

Select one:

- a. solute
- b. solution
- c. solvent

Question 12

Not yet answered

Marked out of 1.00

v1 (latest)

Area of compound NaCl in water solution is?

Select one:

- a. basic
- b. acidic
- c. neutral

Question 13

Not yet answered

Marked out of 1.00

v1 (latest)

What does it mean, when a solution is supersaturated?

Select one:

- a. just enough solute
- b. too much solute
- c. not enough solute

Question 14

Not yet answered

Marked out of 1.00

v1 (latest)

Area of compound $AlCl_3$ in water solution is?

Select one:

- a. acidic
- b. basic
- c. neutral

Question 15

Not yet answered

Marked out of 1.00

v1 (latest)

What is the rate law for the reaction: A + B + C → D

Select one:

- a. $V=K[A][B][C]$
- b. $V=K[A][B]^2$
- c. $V=K[A]^2[B]$
- d. $V=K[A][B]$

Question 16

Not yet answered

Marked out of 1.00

v1 (latest)

What is the rate law for the reaction: A(g) + 2B(g) → D

Select one:

- a. $V=K[A][B]$
- b. $V=K[A][B]^2$
- c. $V=K[A]^2[B]$
- d. $V=K[A][B][C]$

Question 17

Not yet answered

Marked out of 1.00

v1 (latest)

Classify the following reaction: $Fe + CuSO_4 \rightarrow FeSO_4 + Cu$

Select one:

- a. Decomposition
- b. synthesis
- c. redox
- d. precipitation

Question 18

Not yet answered

Marked out of 1.00

v1 (latest)

Express Equilibrium Constant for reaction: $N_2(g) + 3H_2(g) \rightleftarrows 2NH_3(g)$;

Select one:

- a. $Kc = [NH_3] / [N_2]x[H_2]$
- b. $Kc = [NH_3]^2 / [N_2]x[H_2]$
- c. $Kc = [NH_3] / [N_2]x[H_2]_2$
- d. $Kc = [NH_3]^2 / [N_2]x[H_2]^3$

Question 19

Not yet answered

Marked out of 1.00

v1 (latest)

Express Equilibrium Constant for reaction: $2NO(g) + O_2(g) \rightleftarrows 2NO_2(g)$;

Select one:

- a. $Kc = [NO_2]/[NO]^2x[O_2]^2$
- b. $Kc = [NO_2]^2/[NO]^2x[O_2]$
- c. $Kc = [NO_2]^2/[O_2]^2$
- d. $Kc = [NO_2]^2/[NO]^2x[O_2]^2$

Question 20

Not yet answered

Marked out of 1.00

v1 (latest)

Consider the following exothermic reaction:

$N_2(g) + 3H_2(g) \rightleftarrows 2NH_3(g) + Q$

If the temperature of a gas mixture is increased, in which direction the equilibrium will shift?

Select one:

- a. No change
- b. From left to right
- c. From right to left

Question 21

Not yet answered

Marked out of 1.00

v1 (latest)

In the following reaction :

$N_2(g) + 3H_2(g) \leftrightarrow 2NH_3(g)$

what would be effect of doubling the concentration of N_2?

Select one:

- a. The rate of reaction drops by half
- b. The rate of reaction double
- c. The rate of reaction does not change
- d. The rate of reaction quadruples

Question 22

Not yet answered

Marked out of 1.00

v1 (latest)

In the following reaction :

$N_2(g) + 3H_2(g) \leftrightarrow 2NH_3(g)$

what would be effect of doubling the concentration of H_2?

Select one:

- a. The rate of reaction double
- b. The rate of reaction increases 9 time
- c. The rate of reaction does not change
- d. The rate of reaction quadruples

Question 23

Not yet answered

Marked out of 1.00

v1 (latest)

Balance the following reaction: $MnO_2 + HCl \rightarrow MnCl_2 + Cl_2 + H_2O$
When the following equation is balanced, what is the coefficient for the hydrochloric acid?

Select one:

- a. 32
- b. 44
- c. 4
- d. 16

Question 24

Not yet answered

Marked out of 1.00

v1 (latest)

Consider reaction: $N_2(g) + 3H_2(g) \rightleftarrows 2\ NH_3(g)$
If the pressure of a gas mixture is increased, in which direction the equilibrium will shift?

Select one:

- a. No change
- b. From left to right
- c. From right to left

Question 25

Not yet answered

Marked out of 1.00

v1 (latest)

Consider reaction: $CO(g) + H_2O(g) \rightleftarrows CO_2(g) + H_2(g)$;
If the pressure of a gas mixture is increased, in which direction the equilibrium will shift?

Select one:

- a. From left to right
- b. From right to left
- c. No change

Question 26

Not yet answered

Marked out of 1.00

v1 (latest)

Calculate the number of moles of H2SO4 in 50 cm3 of a 0.50 moldm-3 solution.

Select one:

- a. 0,883
- b. 0.012
- c. 0.025
- d. 0.993

Question 27

Not yet answered

Marked out of 1.00

v2 (latest)

Find the masses of sodium chloride and water required to obtain 175 g of a 10 % solution

Select one:

- a. 88.3 and 86.7
- b. 25.5 and 149.5
- c. 99.3 and 96.7
- d. 17.5 and 157.5

Question 28

Not yet answered

Marked out of 1.00

v1 (latest)

Find the mass percentage of 6 g sodium hydroxide dissolved in 54 g of water.

Select one:

- a. 10%
- b. 6%
- c. 20%
- d. 14%