

Question 1

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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

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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

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v1 (latest)

What is oxidation state of Nitrogen in $(\text{NO}_3)^-$?

Select one:

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



Question 5

Not yet answered

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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: F₂, Cu²⁺, Na ,Ca²⁺?

Select one:

- ☐ a. Ca
- ☐ b. Na
- ☐ c. Cu²⁺
- ☐ d. Ca²⁺



Question 7

Not yet answered

Marked out of 1.00

v1 (latest)

For the following example identify oxidizing agent: $4\text{Al} + 3\text{O}_2 \rightarrow 2\text{Al}_2\text{O}_3$

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: $4\text{P} + 5\text{O}_2 \rightarrow 2\text{P}_2\text{O}_5$

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. $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$
- ☐ b. $4\text{P} + 5\text{O}_2 \rightarrow 2\text{P}_2\text{O}_5$
- ☐ c. $\text{Cu}(\text{OH})_2 \rightarrow \text{CuO} + \text{H}_2\text{O}$
- ☐ d. $\text{AlCl}_3 + 3\text{NaOH} \rightarrow \text{Al}(\text{OH})_3 + 3\text{NaCl}$

Question 10

Not yet answered

Marked out of 1.00

v1 (latest)

Express rate law for reaction: $\text{S}(\text{s}) + \text{O}_{2(\text{g})} \rightarrow \text{SO}_2$

Select one:

- ☐ a. $V = k[\text{SO}_2]$
- ☐ b. $V = k[\text{S}][\text{O}_2]$
- ☐ c. $V = k[\text{O}_2]$
- ☐ d. $V = k[\text{S}]$



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: $A + B + C \rightarrow D$

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: $A(g) + 2B(g) \rightarrow D$

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: $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4 + \text{Cu}$

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: $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightleftharpoons 2\text{NH}_3(\text{g})$;

Select one:

- ☐ a. $K_c = [\text{NH}_3] / [\text{N}_2] \times [\text{H}_2]$
- ☐ b. $K_c = [\text{NH}_3]^2 / [\text{N}_2] \times [\text{H}_2]$
- ☐ c. $K_c = [\text{NH}_3] / [\text{N}_2] \times [\text{H}_2]_2$
- ☐ d. $K_c = [\text{NH}_3]^2 / [\text{N}_2] \times [\text{H}_2]^3$



Question 19

Not yet answered

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v1 (latest)

Express Equilibrium Constant for reaction: $2\text{NO}(\text{g}) + \text{O}_2(\text{g}) \rightleftharpoons 2\text{NO}_2(\text{g})$;

Select one:

- ☐ a. $K_c = [\text{NO}_2]/[\text{NO}]^2 \times [\text{O}_2]^2$
- ☐ b. $K_c = [\text{NO}_2]^2/[\text{NO}]^2 \times [\text{O}_2]$
- ☐ c. $K_c = [\text{NO}_2]^2/[\text{O}_2]^2$
- ☐ d. $K_c = [\text{NO}_2]^2/[\text{NO}]^2 \times [\text{O}_2]^2$

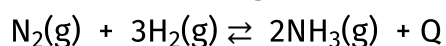
Question 20

Not yet answered

Marked out of 1.00

v1 (latest)

Consider the following exothermic reaction:



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



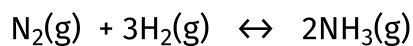
Question 21

Not yet answered

Marked out of 1.00

v1 (latest)

In the following reaction :



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

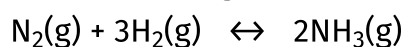
Question 22

Not yet answered

Marked out of 1.00

v1 (latest)

In the following reaction :



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: $\text{MnO}_2 + \text{HCl} \rightarrow \text{MnCl}_2 + \text{Cl}_2 + \text{H}_2\text{O}$

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: $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightleftharpoons 2\text{NH}_3(\text{g})$

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: $\text{CO(g)} + \text{H}_2\text{O(g)} \rightleftharpoons \text{CO}_2\text{(g)} + \text{H}_2\text{(g)}$;
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 H_2SO_4 in 50 cm³ of a 0.50 mol dm⁻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%

