

Which of the following has equal boiling
point

I. 0.1 M Na_2SO_3

II. 0.1 M $\text{C}_{12}\text{H}_{22}\text{O}_{11}$

III. 0.1 M MgCl_2

IV. 0.1 M $\text{Al}(\text{NO}_3)_3$

a. ☐ i and ii

b. ☐ ii and iii

c. ☐ iii and iv

d. ☒ i and iii

الإجابة الصحيحة هي:

i and iii



سؤال 7

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Increasing temperature usually increases the solubility of solid and liquid substances and usually decreases the solubility of gases in water.

☒ a. true

☐ b. false

الإجابة الصحيحة هي:

true



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الإجابة الصحيحة هي:

true

سؤال 5

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

The reaction in which oxidation and reduction takes place at the same time is called

a. reduction reaction ☐

b. redox reaction ☒

c. oxidation reaction ☐

d. none of the above ☐

الإجابة الصحيحة هي:

redox reaction

سؤال 6

صحيح

Vapor-pressure lowering, boiling-point elevation, freezing point depression, and osmotic pressure are colligative properties of solutions; that is, they depend on the number of solute particles that are present and on their nature.

true .a ☐

✓ false .b ☒

الإجابة الصحيحة هي:

false



The osmotic pressure of 0.1 M KCl solution is greater than that of 0.05 M CaCl_2 solution

✓ true .a ☒

false .b ☐

الإجابة الصحيحة هي:

true



سؤال 1

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

In the reaction of formation of magnesium oxide
magnesium undergoes

- ☒ a. oxidation
- ☐ b. hydrogenation
- ☐ c. reduction
- ☐ d. decomposition

الإجابة الصحيحة هي:

oxidation

سؤال 2

صحيح

درجة 1.00 من 1.00

علم هذا السؤال



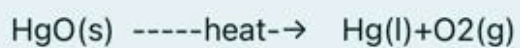
oxidation

سؤال 2

صحيح

درجة 1.00 من 1.00

علم هذا السؤال



:The above given reaction is

- a. ☐ metal displacement reaction
- b. ☐ hydrogen displacement reaction
- c. ☒ thermal decomposition reaction
- d. ☐ combination reaction

الإجابة الصحيحة هي:

thermal decomposition reaction

سؤال 3

صحيح



18



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40 g of C will be left over.

سؤال 8

صحيح

درجة 2.00 من 2.00

علم هذا السؤال

Hydrogen sulfide gas was bubbled through 250.0 mL of a solution containing 17.85 g L^{-1} of lead(II) nitrate until all the lead was precipitated as lead sulfide. The mass of hydrogen sulfide required was $\text{H}_2\text{S} + \text{Pb}(\text{NO}_3)_2 \rightarrow \text{PbS} + 2\text{HNO}_3$

- ☒ a. 0.460 g
- ☐ b. 0.920 g
- ☐ c. 1.84 g
- ☐ d. 0.520 g

الإجابة الصحيحة هي: 0.460 g

إنهاء المراجعة

تنقل الاختبار



Which of the following is not a property required of the substance chosen for use as a precipitate in a gravimetric analysis

- a. ☐ Has known formula
- b. ☐ Stable when heated to 110°C
- c. ☒ Able to be stored for an extended time without deterioration
- d. ☐ Low solubility

الإجابة الصحيحة هي:

Able to be stored for an extended time without deterioration



In the equation: $\text{HF} + \text{H}_2\text{O} \rightarrow \text{H}_3\text{O}^+ + \text{F}^-$

- a. ☐ HF is a base and F^- is its conjugate acid.
- b. ☐ HF is a base and H_3O^+ is its conjugate acid.
- c. ☐ H_2O is an acid and HF is the conjugate base.
- d. ☒ HF is an acid and F^- is its conjugate base.
- e. ☐ H_2O is a base and HF is its conjugate acid.

الإجابة الصحيحة هي:

HF is an acid and F^- is its conjugate base.

سؤال 6

صحيح

درجة 1.00 من 1.00

علم هذا السؤال



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The presence of an ion pair (one or more cations and one or more anions) reduces the number of particles in solution, causing a reduction in the colligative properties.

a. false ☐

b. true ☒

الإجابة الصحيحة هي:

true

سؤال 7

صحيح

درجة 2.00 من 2.00

علم هذا السؤال

What is the osmotic pressure at 25°C when 72.5 mL of a solution containing 4.25 grams of electrolyte CaCl_2 (molar mass=111 g/mole) is prepared?

a. 388 atm ☐

b. 3.88 atm ☐

Hexane and isooctane are both nonpolar molecules. Hence the predominant intermolecular forces in both liquids are London dispersion forces. We expect the A–B interactions to be comparable in strength to the A–A and B–B interactions, leading to a vapor pressure in good agreement with that predicted by Raoult's law (an ideal solution)

✓ true .a ☐

false .b ☐

الإجابة الصحيحة هي:

true

سؤال 5

صحيح

درجة 1.00 من 1.00

۱۷ علم هذا السؤال

When a semipermeable membrane is placed between two isotonic solutions, then

سؤال 8

صحيح

درجة 2.00 من 2.00

علم هذا السؤال

How many grams of the nonelectrolyte sucrose (molar mass=342 g/mole) must be added to 450 g of water (molar mass=18.0 g/mole) to change its vapor pressure to 745 mm Hg at 100 °C

☒ a. 174 g

☐ b. 1.74 g

☐ c. 0.174 g

☐ d. 17.4 g

الإجابة الصحيحة هي:

174 g



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درجة 1.00 من 1.00

علم هذا السؤال

In the equation: $\text{HF} + \text{H}_2\text{O} \longrightarrow \text{H}_3\text{O}^+ + \text{F}^-$

a. ☐ HF is a base and F^- is its conjugate acid.

b. ☐ H_2O is an acid and HF is the conjugate base.

c. ☐ H_2O is a base and HF is its conjugate acid.

d. ☐ HF is a base and H_3O^+ is its conjugate acid.

e. ☒ HF is an acid and F^- is its conjugate base.

الإجابة الصحيحة هي:

HF is an acid and F^- is its conjugate base.

سؤال 2

صحيح

سؤال 4

⋮

1.00 من 1.00

علم هذا السؤال

$\text{SnCl}_2 + 2\text{FeCl}_2 \rightarrow \text{SnCl}_4 + 2\text{FeCl}_3$. Which of the following element undergoes oxidation in the reaction given?

✓ Tin .a ☒

Chlorine .b ☐

Iron .c ☐

Ferrous .d ☐

الإجابة الصحيحة هي:

Tin

سؤال 5

صحيح

درجة 1.00 من 1.00

علم هذا السؤال



Tin

سؤال 5

صحیح

درجة 1.00 من 1.00

﴿ عَلم هذا السؤال ﴾

Both gravimetric and volumetric analysis are quantitative methods for calculating the amount of sample in a solution, gravity analysis determines the volume of the analyte, while volumetric analysis mass of the analyte

true .a ☐

✓ false .b

الإجابة الصحيحة هي:

false

سؤال 6

صحیح

درجة 1.00 من 1.00



Idist

سؤال 4

صحيح

درجة 1.00 من 1.00

﴿ عِلْمٌ هَذَا السُّؤَالِ ﴾

NaCl will generate more ions per mole than 1 mole of CaCl_2 and be a better conductor of electricity.

true .a ☐

✓ false .b ☐

الإجابة الصحيحة هي:

false

سؤال 5

صحيح

درجة 1.00 من 1.00

﴿ عَلمَ هذا السؤال

سؤال 2

صحيح

درجة 1.00 من 1.00

👉 عَم هذا السؤال

What is a semipermeable membrane in the
?context of osmosis

a. ☐ A membrane that allows neither
solute nor solvent particles to pass
through it

✓ b. ☒ A membrane that allows
solvent, but not solute particles,
to pass through it

c. ☐ A membrane that allows both
solute and solvent particles to pass
through it

d. ☐ A membrane that allows solute
particles, but not solvent particles,
to pass through it



الإجابة الصحيحة هي:



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سؤال 8

خطأ

درجة 0.00 من 2.00

🚩 عَلم هذا السؤال

How many grams of NH_3 can be prepared from 77.3 grams of N_2 and 14.2 grams of H_2 ? (Hint: Write and balance the equation first.)

a. 47.0 g ☐b. 79.7 g ☐c. 13.3 g ☒d. 120 g ☐e. 93.9 g ☐

الإجابة الصحيحة هي:

79.7 g

إنهاء المراجعة

تنقل الاختبار



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Which of the following observations
demonstrates colligative properties

A 0.1 M NaCl solution has a higher vapour pressure than 0.1 M CaCl_2 solution. .a ☐

a and c .b ☐

A 0.1 M KOH solution freezes at lower temperature than pure water .c ☐

✓ a and b .d ☒

Pure water freezes at a high temperature than pure methanol. .e ☐

الإجابات الصحيحة هي:

A 0.1 M NaCl solution has a higher vapour pressure than 0.1 M CaCl_2 solution.,

A 0.1 M KOH solution freezes at lower temperature than pure water,

Pure water freezes at a high temperature than pure methanol.,

a and b,

a and c

Which factor does not affect the solubility of a solid in a solvent

a. ☐ Nature of the solute

b. ☐ Temperature

c. ☒ Pressure

d. ☐ Nature of the solvent

الإجابة الصحيحة هي:

Pressure

سؤال 3

صحيح

درجة 2.00 من 2.00

علم هذا السؤال

Calculate the **molality** of a solution that contains 51.2 g of naphthalene, $C_{10}H_8$, in 500 ml of carbon tetrachloride. The density of

-3.72 °C

سؤال 8

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Which of the following solutions has highest osmotic pressure

✓ a. 1 M NaCl ☒

b. 1 M sucrose ☐

c. 1 M urea ☐

d. 1 M glucose ☐

الإجابة الصحيحة هي:

1 M NaCl

إنهاء المراجعة

تنقلا الاختبار



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سؤال 1

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

At 25° C, the highest osmotic pressure is exhibited by 0.1 M solution of

urea .a ☐

KCl .b ☐

glucose .c ☐

✓ CaCl₂ .d ☒

الإجابة الصحيحة هي:

CaCl₂



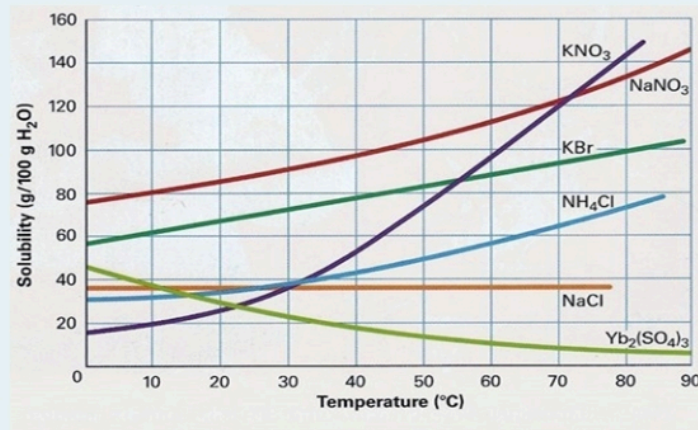
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صحيح

درجة 1.00 من 1.00

🚩 علم هذا السؤال

At which temperature do KBr and KNO₃ have
?the same solubility



50 .a ☐

60 .b ☐

never .c ☐

✓ 55 .d ☒

الإجابة الصحيحة هي:

55

خطأ

درجة 0.00 من 1.00

👉 عَلم هذا السؤال

Which of the following solutions boils at the highest temperature

0.1 M urea .a ☐

✗ 0.1 M NaCl .b ☒

0.1 M glucose .c ☐

0.1 M BaCl₂ .d ☐

الإجابة الصحيحة هي:

0.1 M BaCl₂

سؤال 7

صحيح

درجة 1.00 من 1.00

👉 عَلم هذا السؤال

At which temperature do KBr and KNO₃ have

As the concentration of a solute in a solution increases, the freezing point of the solution _____ and the vapor pressure of the _____ solution.

- a. ☐ increases, decreases
- b. ☒ decreases, increases
- c. ☐ increases, increases
- d. ☐ decreases, decreases

الإجابة الصحيحة هي:

decreases, increases



Vapor-pressure lowering, boiling-point elevation, freezing point depression, and osmotic pressure are colligative properties of solutions; that is, they depend on the number of solute particles that are present and on their nature.

true .a ☐

✓ false .b ☒

الإجابة الصحيحة هي:

false



At 20 °C, the vapor pressures of pure benzene (C_6H_6 , molar mass=78.0 g/mole) and toluene ($\text{C}_6\text{H}_5\text{CH}_3$, molar mass=92.0 g/mole) are 22 mm Hg and 74 mm Hg, respectively. What is the total vapor pressure above a solution containing 20.0 g of benzene and 20.0 g of toluene at 20 °C

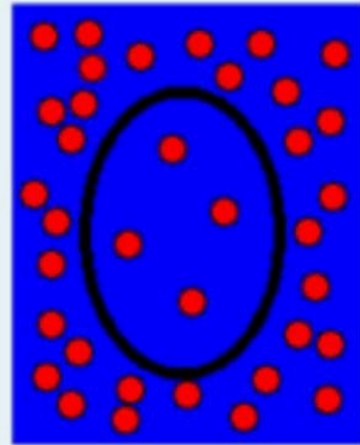
- a. ☐ 4.59 mmHg
- b. ☒ 45.9 mmHg
- c. ☐ 49.5 mmHg
- d. ☐ 459 mmHg

الإجابة الصحيحة هي:

45.9 mmHg



The picture below represents a cell wall in solution, with red spheres being solute particles. The solution surrounding the cell wall is best described as



Isotonic to the cell .a ☐

✓ Hypertonic to the cell .b ☒

Hypotonic to the cell .c ☐

الإجابة الصحيحة هي:

Hypertonic to the cell

What is the freezing point of an aqueous 1.00 m NaCl solution? ($K_f = 1.86\text{ }^{\circ}\text{C/m}$) (Assume complete dissociation of the salt.)

a. ☐ $-0.93\text{ }^{\circ}\text{C}$

b. ☐ $+1.86\text{ }^{\circ}\text{C}$

c. ☒ $-3.72\text{ }^{\circ}\text{C}$

d. ☐ $-1.86\text{ }^{\circ}\text{C}$

الإجابة الصحيحة هي:

$-3.72\text{ }^{\circ}\text{C}$



The ease of dissolving a solute in a solvent is governed by intermolecular forces. Energy and the disorder that results when molecules of the solute and solvent mix to form a solution are the forces driving the solution process.

false .a ☐

✓ true .b ☒

الإجابة الصحيحة هي:

true



Which of the following observations
demonstrates colligative properties

A 0.1 M NaCl solution has a higher vapour pressure than 0.1 M CaCl_2 solution. .a ☐

a and c .b ☐

A 0.1 M KOH solution freezes at lower temperature than pure water .c ☐

✓ a and b .d ☒

Pure water freezes at a high temperature than pure methanol. .e ☐

الإجابات الصحيحة هي:

A 0.1 M NaCl solution has a higher vapour pressure than 0.1 M CaCl_2 solution.,

A 0.1 M KOH solution freezes at lower temperature than pure water,

Pure water freezes at a high temperature than pure methanol.,

a and b,

a and c

At 20 °C, the vapor pressures of pure benzene (C_6H_6 , molar mass=78.0 g/mole) and toluene ($C_6H_5CH_3$, molar mass=92.0 g/mole) are 22 mm Hg and 74 mm Hg, respectively. What is the total vapor pressure above a solution containing 20.0 g of benzene and 20.0 g of toluene at 20 °C

a. ☐ 49.5 mmHg

b. ☒ 45.9 mmHg

c. ☐ 4.59 mmHg

d. ☐ 459 mmHg

الإجابة الصحيحة هي:

45.9 mmHg

إنهاء المراجعة

تنقل الاختبار

8 7 6 5 4 3 2 1

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In 1L of glacial CH_3COOH , 0.1 M acetamide is dissolved. When the solution is cooled, the molecule contains the first crystal that forms at the freezing point is

- Both acetamide and glacial CH_3COOH .a ☐
- non of the above .b ☐
- ✓ Glacial CH_3COOH .c ☒
- A acetamide .d ☐

الإجابة الصحيحة هي:

Glacial CH_3COOH



صحيح

درجة 1.00 من 1.00

👉 علم هذا السؤال

If the compound is a nonelectrolyte, its concentration is the same as the molarity of the solution.

✓ true .a ☒

false .b ☐

الإجابة الصحيحة هي:

true

سؤال 2

صحيح

درجة 1.00 من 1.00

👉 علم هذا السؤال

Which factor does not affect the solubility of a solid in a solvent

صحيح

درجة 2.00 من 2.00

📌 عَلم هذا السؤال

Calculate the **molality** of a solution that contains 51.2 g of naphthalene, $C_{10}H_8$, in 500 mL of carbon tetrachloride. The density of CCl_4 is 1.60 g/mL

0.250 m .a ☐

0.840 m .b ☐

0.750 m .c ☐

✓ 0.500 m .d ☒

1.69 m .e ☐

الإجابة الصحيحة هي:

0.500 m

سؤال 4

صحيح

درجة 1.00 من 1.00

📌 عَلم هذا السؤال

📌 عَلم هذا السؤال

The CaCl_2 solution will have a lower vapor pressure, because it contains three times as many particles as the glucose solution

✓ true .a ☒

false .b ☐

الإجابة الصحيحة هي:

true

سؤال 5

صحيح

درجة 1.00 من 1.00

📌 عَلم هذا السؤال

Which of the following observations demonstrates colligative properties

A 0.1 M NaCl solution has a higher

a ☐

الإجابة الصحيحة هي:

false

سؤال 5

صحيح

درجة 1.00 من 1.00

👉 علم هذا السؤال

Which of the following solutions boils at the highest temperature

0.1 M glucose .a ☐

0.1 M urea .b ☐

✓ 0.1 M BaCl₂ .c ☒

0.1 M NaCl .d ☐

الإجابة الصحيحة هي:

0.1 M BaCl₂

سؤال 6

صحيح





لب



سؤال 6

صحيح

درجة 2.00 من 2.00

علم هذا السؤال

Consider the following pairs of liquids.

?Which pairs are **miscible**

benzene, C_6H_6 , and hexane, C_6H_{12} .1

water and methanol, CH_3OH .2

water and hexane .3

1, 2, 3 .a ☐

2, 3 only .b ☐

1 only .c ☐

✓ 1, 2 only .d ☒

2 only .e ☐

الإجابة الصحيحة هي:

1, 2 only



سؤال 7

صحيح

درجة 2.00 من 2.00

👉 علم هذا السؤال

What is the freezing point of an aqueous
1.00 m NaCl solution? ($K_f = 1.86\text{ }^{\circ}\text{C/m}$)
(Assume complete dissociation of the salt.)

a. ☐ $-0.93\text{ }^{\circ}\text{C}$

b. ☐ $-1.86\text{ }^{\circ}\text{C}$

c. ☐ $+1.86\text{ }^{\circ}\text{C}$

d. ☒ $-3.72\text{ }^{\circ}\text{C}$

الإجابة الصحيحة هي:

$-3.72\text{ }^{\circ}\text{C}$



سؤال 7

خطأ

درجة 0.00 من 1.00

👉 عَلم هذا السؤال

$\text{SnCl}_2 + 2\text{FeCl}_2 \rightarrow \text{SnCl}_4 + 2\text{FeCl}_2$ is an example of _____ reaction

a. ☐ only reduction

b. ☒ only oxidation

c. ☐ redox

d. ☐ neither oxidation nor reduction

الإجابة الصحيحة هي:

redox

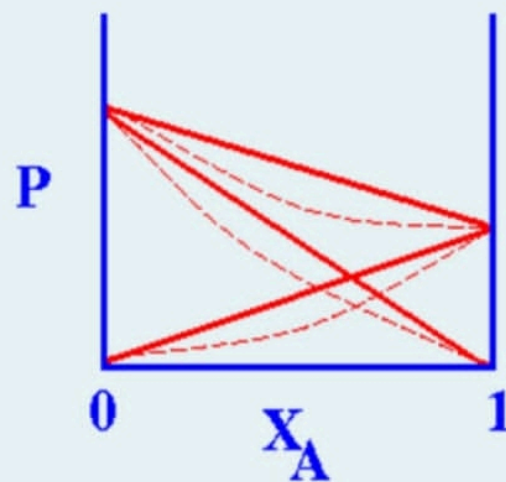
سؤال 8

خطأ

درجة 0.00 من 2.00

👉 عَلم هذا السؤال

The graph below contains dashed lines representing the measured vapor pressure, and solid lines representing the ideal vapor pressure for a mixture of volatile liquids **A** and **B**. The **A-B** intermolecular forces are:



- Similar to **A-A** or **B-B** forces .a ☐
- ✓ More attractive than **A-A** or **B-B** forces .b ☒
- More repulsive than **A-A** or **B-B** forces .c ☐

سؤال 3

خطأ

درجة 0.00 من 1.00

👉 علم هذا السؤال

The boiling point and freezing point of a solution with a nonvolatile solute is always greater than the boiling point of the pure solvent.

Ⓐ. false ☐

Ⓑ. True ☒

الإجابة الصحيحة هي:

false

سؤال 4

صحيح

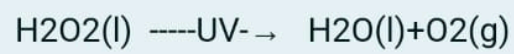
درجة 1.00 من 1.00

👉 علم هذا السؤال

NaCl will generate more ions per mole than

📌 عَلم هذا السؤال

.Identify the type of chemical reaction



a. ☐ Displacement reaction

b. ☐ Neutralization reaction

c. ☐ Combination reaction

d. ☒ Decomposition reaction

الإجابة الصحيحة هي:

Decomposition reaction

سؤال 3



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Decomposition reaction

سؤال 3

صحيح

درجة 2.00 من 2.00

👉 عَلم هذا السؤال

The amount of NaOH used in the titration of
.100 ml 0.1 M HCl is
 $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$

a. ☐ 0.04 g

b. ☐ 2 g

c. ☒ 0.4 g

d. ☐ 4 g

الإجابة الصحيحة هي: 0.4 g

سؤال 4

صحيح

درجة 1.00 من 1.00

👉 عَلم هذا السؤال

سؤال 6

صحيح

درجة 1.00 من 1.00

👉 علم هذا السؤال

Given that the Activity Series is:
Na>Mg>Cu>Ag>Au, which one of the
following answers represents the ions that
would **not** be displaced from aqueous
?solution (reduced) by metallic magnesium

a. Cu^{2+} and Au^{+} ☐

b. Na^{+} ☒

c. Cu^{2+} ☐

d. Na^{+} , Cu^{2+} , Ag^{+} and Au^{+} ☐

e. Cu^{2+} , Ag^{+} and Au^{+} ☐

الإجابة الصحيحة هي:

Na^{+}

سؤال 7

خطأ



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What is the osmotic pressure at 25°C when 72.5 mL of a solution containing 4.25 grams of electrolyte CaCl_2 (molar mass=111 g/mole) is prepared?

a. 388 atm ☐

b. 3.88 atm ☐

c. 38.8 atm ☒

d. 0.388 atm ☐

الإجابة الصحيحة هي:

38.8 atm

سؤال 8

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

سؤال 2

صحيح

درجة 1.00 من 1.00

📌 علّم هذا السؤال

At 25° C, the highest osmotic pressure is exhibited by 0.1 M solution of

- ✓ ☒ a. CaCl_2
- ☐ b. glucose
- ☐ c. KCl
- ☐ d. urea

الإجابة الصحيحة هي:

 CaCl_2

سؤال 3

صحيح

درجة 1.00 من 1.00

📌 علّم هذا السؤال

molar solutions of glucose, phenol and 0.01 potassium chloride were prepared in water. The boiling points of

- a. ☐ Phenol solution > Potassium chloride solution > Glucose solution
- b. ☒ Potassium chloride solution > Phenol solution > Glucose solution
- c. ☐ Glucose solution = Phenol solution = Potassium chloride solution
- d. ☐ Potassium chloride solution > Glucose solution > Phenol solution

الإجابة الصحيحة هي:

Potassium chloride solution > Phenol solution > Glucose solution

سؤال 4

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

سؤال 3

صحيح

درجة 1.00 من 1.00

٣ علّم هذا السؤال

A solution that has reached the maximum solubility is called a **saturated solution**. If more solute is added at this point, it will not dissolve into the solution. Instead it will remain precipitated as a solid at the bottom of the solution

☒ a. true

☐ b. false

الإجابة الصحيحة هي:

true

سؤال 4

صحيح

درجة 1.00 من 1.00

٣ علّم هذا السؤال

At room temperature water can dissolve 35g of salt per 100g of water at room temperature. A particular solution contains 14g of salt in 100g of water, this solution is

☒ a. unsaturated

☐ b. supersaturated

☐ c. Saturated

الإجابة الصحيحة هي:

unsaturated



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82 ٤:٥٥ م

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سج

الإجابة الصحيحة هي:

38.8 atm

سؤال 8

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

The solubility of a gas increases as temperature increases

☒ a. False

☐ b. True

الإجابة الصحيحة هي:

False

إنهاء المراجعة

تقل الاختيار



82 ٤:٥٥ م

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سج

When a semipermeable membrane is placed between two isotonic solutions, then

a. Osmosis occur more efficiently ☐

b. Reverse osmosis occur ☐

c. Flow of solute takes place ☐

d. Osmosis do not occur ☒

الإجابة الصحيحة هي:
Osmosis do not occur

سؤال 6
صحيح
درجة 1.00 من 1.00
علم هذا السؤال

The presence of an ion pair (one or more cations and one or more anions) reduces the number of particles in solution, causing a reduction in the colligative properties.

صحیح

درجة 1.00 من 1.00

إزالة الإشارة

The unit of cryoscopic constant

a. Kg/mol K ☐

b. mol/ Kg K ☐

c. K Kg/mol ☒

d. K g/mol ☐

الإجابة الصحيحة هي:

K Kg/mol

سؤال 2

صحیح

درجة 1.00 من 1.00

علم هذا السؤال

The solubility of a gas increases as temperature increases

a. True ☐

b. False ☒

الإجابة الصحيحة هي:

False



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The vapor pressure of pure water (molar mass=18.0 g/mole) at 50 °C is 92.5 mm Hg. A solution containing the nonelectrolyte sucrose (molar mass=342 g/mole) has a vapor pressure of 90.8 mm Hg at 50 °C. What is the boiling point elevation (ΔT_b) of this solution ? (($K_b(\text{water})=0.520$ °C/m

a. 5.30 °C ☐

b. 0.530 °C ☐

c. 0.350 °C ☐

d. 0.530 °C ☒

الإجابة الصحيحة هي:

0.530 °C



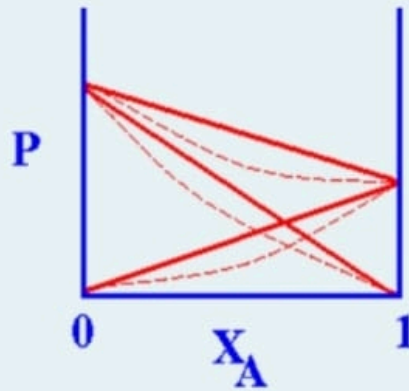
سؤال 5

خطأ

درجة 0.00 من 1.00

علم هذا السؤال

The graph below contains dashed lines representing the measured vapor pressure, and solid lines representing the ideal vapor pressure for a mixture of volatile liquids **A** and **B**. The **A-B** intermolecular forces are:



a. ☐ Similar to **A-A** or **B-B** forces

b. ☐ More attractive than **A-A** or **B-B** forces

c. ☒ More repulsive than **A-A** or **B-B** forces

الإجابة الصحيحة هي:

More attractive than **A-A** or **B-B** forces



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سؤال 8

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Which of the following solutions has highest osmotic pressure

☒ a. 1 M NaCl

☐ b. 1 M urea

☐ c. 1 M glucose

☐ d. 1 M sucrose

الإجابة الصحيحة هي:

1 M NaCl

سؤال 1

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Which of the following will produce the maximum depression in freezing point of its aqueous solution

0.1 M magnesium sulphate .a ☐✓ 0.1 M barium chloride .b ☒0.1 M glucose .c ☐0.1 M sodium chloride .d ☐

الإجابة الصحيحة هي:

0.1 M barium chloride

سؤال 2

صحيح

درجة 2.00 من 2.00



سؤال 6

صحيح

درجة 2.00 من 2.00

٣ علم هذا السؤال

Determine the elevation of the boiling point of a aqueous solution with 1 mol of solute (glucose). (density=1.2g/mL) (Assume the volume 1000 ml, molar mass of glucose is 180g)

- ☐ a. 0.2 Kb
- ☒ b. 0.98 Kb
- ☐ c. 0.02 Kb
- ☐ d. Kb

الإجابة الصحيحة هي:

0.98 Kb

سؤال 7

صحيح

درجة 1.00 من 1.00

٣ علم هذا السؤال

NaCl will generate more ions per mole than 1 mole of CaCl_2 and be a better conductor of electricity.

- ☐ a. true
- ☒ b. false

الإجابة الصحيحة هي:

false



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علم هذا السؤال

$\text{SnCl}_2 + 2\text{FeCl}_2 \rightarrow \text{SnCl}_4 + 2\text{FeCl}_2$. Which of the following element undergoes oxidation in the reaction given

a. chlorine ☐

b. tin ☒

c. ferrous ☐

d. iron ☐

الإجابة الصحيحة هي:

tin

سؤال 5

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

In the equation: $\text{HF} + \text{H}_2\text{O} \rightarrow \text{H}_3\text{O}^+ + \text{F}^-$



18



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نك



Silicon carbide, an abrasive, is made by the reaction of silicon dioxide with graphite



If 100 g of SiO_2 and 100 g of C are reacted as far as possible, which one of the following statements will be correct

- a ☐ 111 g of SiO_2 will be left over.
- b ☐ 44 g of SiO_2 will be left over.
- c ☐ Both reactants will be consumed completely, with none of either left over.
- d ☐ 82 g of C will be left over.
- e ☒ 40 g of C will be left over.

الإجابة الصحيحة هي:

40 g of C will be left over.

سؤال 8

صحيح

درجة 2.00 من 2.00



18

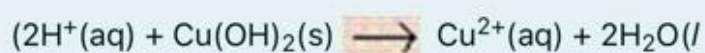




نك



Which of the following statements is **FALSE** given
the following net ionic equation



- ✓ .a ☒ If all the water evaporated away, the salt remaining could possibly be CuS.
- .b ☐ The acid involved must be a strong electrolyte.
- .c ☐ The base, $\text{Cu}(\text{OH})_2$, is an insoluble base.
- .d ☐ This is classified as a neutralization reaction.
- .e ☐ This could be the net ionic equation for HNO_3 reacting with $\text{Cu}(\text{OH})_2$.

الإجابة الصحيحة هي:

If all the water evaporated away, the salt remaining could possibly be CuS.

سؤال 7

صحيح

درجة 2.00 من 2.00



18



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سؤال 6

خطأ

درجة 0.00 من 1.00

علم هذا السؤال

In 1L of glacial CH_3COOH , 0.1 M acetamide is dissolved. When the solution is cooled, the molecule contains the first crystal that forms at the freezing point is

Both acetamide and glacial CH_3COOH .a ☐

✗ A acetamide .b ☒

Glacial CH_3COOH .c ☐

non of the above .d ☐

الإجابة الصحيحة هي:

Glacial CH_3COOH

At 20 °C, the vapor pressures of pure benzene (C_6H_6 , molar mass=78.0 g/mole) and toluene ($\text{C}_6\text{H}_5\text{CH}_3$, molar mass=92.0 g/mole) are 22 mm Hg and 74 mm Hg, respectively. What is the total vapor pressure above a solution containing 20.0 g of benzene and 20.0 g of toluene at 20 °C

✗ 4.59 mmHg .a ☒

45.9 mmHg .b ☐

mmHg 459 .c ☐

mmHg 49.5 .d ☐

الإجابة الصحيحة هي:

45.9 mmHg

درجۃ 1.00 من 1.00
علم هذا السؤال

$\text{CuO} + \text{H}_2 \rightarrow \text{H}_2\text{O} + \text{Cu}$, reaction : is an example of

a. neutralisation ☐

b. decomposition ☐

c. ☒ redox reaction

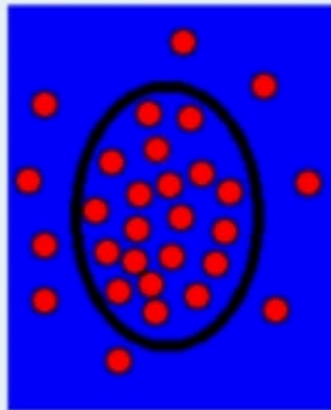
d. combination reaction ☐

الإجابة الصحيحة هي:
redox reaction

سؤال 8
صحيح
درجۃ 1.00 من 1.00
علم هذا السؤال

In the Bronsted-Lowry system, a base is defined

The picture below represents a cell wall in solution, with red spheres being solute particles. The solution surrounding the cell wall is best described as



Isotonic to the cell .a ☐

✓ Hypotonic to the cell .b ☒

Hypertonic to the cell .c ☐

الإجابة الصحيحة هي:

Hypotonic to the cell



Vapor-pressure lowering, boiling-point elevation, freezing point depression, and osmotic pressure are colligative properties of solutions; that is, they depend on the number of solute particles that are present and on their nature.

true .a ☐

✓ false .b ☒

الإجابة الصحيحة هي:

false



درجۃ 1.00 من 1.00

علم هذا السؤال

Which of the following statements is **FALSE** given the following net ionic equation?

$$\text{H}_3\text{PO}_4(\text{aq}) + 3\text{OH}^-(\text{aq}) \longrightarrow \text{PO}_4^{3-}(\text{aq}) + 3\text{H}_2\text{O}(\text{l})$$

a. The acid, H_3PO_4 , is a weak electrolyte. ☐

b. The base involved must be a strong soluble base. ☐

c. If all the water evaporated away, the salt remaining could possibly be Na_3PO_4 . ☐

d. ☒ This could be the net ionic equation for H_3PO_4 reacting with $\text{Al}(\text{OH})_3$.

e. This is classified as a neutralization reaction. ☐

الإجابة الصحيحة هي:

This could be the net ionic equation for H_3PO_4 reacting with $\text{Al}(\text{OH})_3$.

سؤال 7

What will be the freezing point of a water solution that has a boiling point of $101.70\text{ }^{\circ}\text{C}$ ($K_f(\text{water})=1.86\text{ }^{\circ}\text{C/m}$, $?K_b(\text{water})=0.520\text{ }^{\circ}\text{C/m}$)

✓ ☒ a. $-6.08\text{ }^{\circ}\text{C}$

☐ b. $-6.8\text{ }^{\circ}\text{C}$

☐ c. $6.08\text{ }^{\circ}\text{C}$

☐ d. $-0.608\text{ }^{\circ}\text{C}$

الإجابة الصحيحة هي:

$-6.08\text{ }^{\circ}\text{C}$

٤:٣٧

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علم هذا السؤال

In the Bronsted-Lowry system, a base is defined as:

a. a proton acceptor. ☒

b. a proton donor. ☐

c. an electron-pair acceptor. ☐

d. a hydroxide donor. ☐

e. a water-former. ☐

الإجابة الصحيحة هي:
a proton acceptor.

إنهاء المراجعة

تنقل الاختبار

8	7	6	5	4	3	2	1
✓	✓	✓	✓	✓	✓	✓	✓

أظهر صفحة واحدة كل مرة

إنهاء المراجعة

٤:٣٧

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علم هذا السؤال

It takes 83 mL of a 0.45 M NaOH solution to neutralize 235 mL of an HCl solution. What is the concentration of the HCl solution

$$\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$$

a. ☐ 0.08 M

b. ☐ 1.6 M

c. ☐ 0.016 M

d. ☒ 0.16 M

الإجابة الصحيحة هي: 0.16 M

سؤال 3

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Reduction involves in _____ oxidation number.

Hexane and isooctane are both nonpolar molecules. Hence the predominant intermolecular forces in both liquids are London dispersion forces. We expect the A–B interactions to be comparable in strength to the A–A and B–B interactions, leading to a vapor pressure in good agreement with that predicted by Raoult's law (an ideal solution)

☒ a. true

☐ b. false

الإجابة الصحيحة هي:

true



٥٧%

٤:٣٧

٣

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سؤال 4

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

The gravimetric analysis principle is based on determining the mass % of an ion in a known amount of impure compound. It is then used to determine the mass % of the same ion in a .known amount of impure substance

a. true ☒

b. false ☐

الإجابة الصحيحة هي:

true

سؤال 5

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

The solubility of a gas increases as temperature increases

✓ False .a ☒

True .b ☐

الإجابة الصحيحة هي:

False



What is the **molality** of a solution labeled "8.6% glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) by weight?" (Note: If the question does not give the solvent, assume it is water.)

m 0.44 .a ☐

✓ m 0.52 .b ☒

m 0.67 .c ☐

m 0.34 .d ☐

m 0.26 .e ☐

الإجابة الصحيحة هي:

0.52 m

Calculate the mass of hydrogen formed when 25 grams of aluminum reacts with excess hydrochloric acid.



- ☒ a. 2.8 g
- ☐ b. 0.41 g
- ☐ c. 1.2 g
- ☐ d. 1.8 g
- ☐ e. 0.92 g

الإجابة الصحيحة هي:

2.8 g

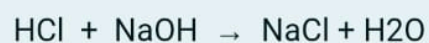
سؤال 2

صحيح

درجة 2.00 من 2.00

علم هذا السؤال

It takes 83 mL of a 0.45 M NaOH solution to neutralize 235 mL of an HCl solution. What is the concentration of the HCl solution



5:37

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نا

الإجابة الصحيحة هي: M 0.16

سؤال 3

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Reduction involves in _____ oxidation number.

a. independence ☐

b. decrease ☒

c. increase ☐

d. remain constant ☐

الإجابة الصحيحة هي:

decrease

سؤال 4

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Na_2SO_4 (molar mass=142 g/mole) are required to make 325 mL of solution having an osmotic pressure of 675 mm Hg at 25 °C

✓ 0.558 g .a ☒

5.58 g .b ☐

g 0.055 .c ☐

g 0.855 .d ☐

الإجابة الصحيحة هي:

0.558 g



At 25° C, the highest osmotic pressure is exhibited by 0.1 M solution of

glucose .a ☐

KCl .b ☐

✓ CaCl₂ .c ☒

urea .d ☐

الإجابة الصحيحة هي:

CaCl₂



Which factor does not affect the solubility of
a solid in a solvent

Nature of the solvent .a ☐

Nature of the solute .b ☐

Temperature .c ☐

✓ Pressure .d ☒

الإجابة الصحيحة هي:

Pressure

