

تم تحميل هذا الملف من موقع المناهج الإماراتية



## أسئلة اختبار تدريبي وفق الهيكل الوزاري

موقع المناهج ← المناهج الإماراتية ← الصف الثاني عشر المتقدم ← كيمياء ← الفصل الأول ← اختبارات ← الملف

تاريخ إضافة الملف على موقع المناهج: 14:52:28 2024-12-05

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل  
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي للمدرس

المزيد من مادة  
كيمياء:

## التواصل الاجتماعي بحسب الصف الثاني عشر المتقدم



صفحة المناهج  
الإماراتية على  
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

## المزيد من الملفات بحسب الصف الثاني عشر المتقدم والمادة كيمياء في الفصل الأول

حل نموذج اختبار تدريبي وفق الهيكل الوزاري

1

نموذج اختبار تدريبي وفق الهيكل الوزاري

2

حل ملزمة تجميعية أسئلة وفق الهيكل الوزاري منهج بريدج الخطة C101

3

حل تجميعية أسئلة وفق الهيكل الوزاري منهج بريدج الخطة C101

4

حل تجميعية أسئلة وفق الهيكل الوزاري نموذج C

5



**Chemistry Exam- 2024\2025 year**

**12 Advanced**

**1-A fruit-and-oatmeal bar contains 142 nutritional Calories. Convert this energy to calories**

1. 142 Kcal
2. 142 cal
3. 130 Cal
4. 0.142 cal

**2-the amount of heat required to raise the temperature of one gram of that substance by one degree Celsius.**

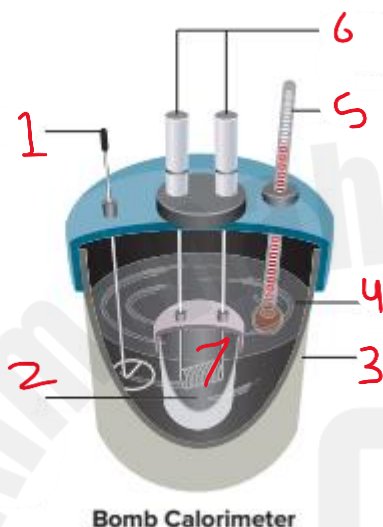
1. Joule
2. Calorie
3. Calorie
4. Specific heat

**3-If two substances with equal masses absorb the same amount of energy, how will their temperature changes compare?**

- A) The substance with a higher specific heat will have a larger temperature increase.
- B) The substance with a lower specific heat will have a larger temperature increase.
- C) Both substances will have the same temperature increase.
- D) The temperature change depends only on the type of substance, not its specific heat.

4- A 155-g sample of an unknown substance was heated from 25.0°C to 40.0°C and absorbed 5696 J of energy. What is the specific heat of the substance?

- A) 3.75 J/g°C
- B) 2.45 J/g°C
- C) 1.25 J/g°C
- D) 4.50 J/g°C

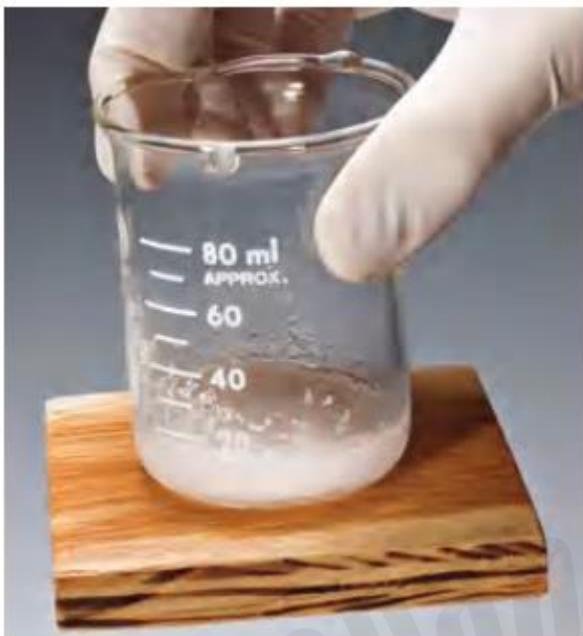


5-

- a- high pressured oxygen in 7
- b- stirrer is 6
- c- ignition terminals are 1
- d- used under open atmosphere

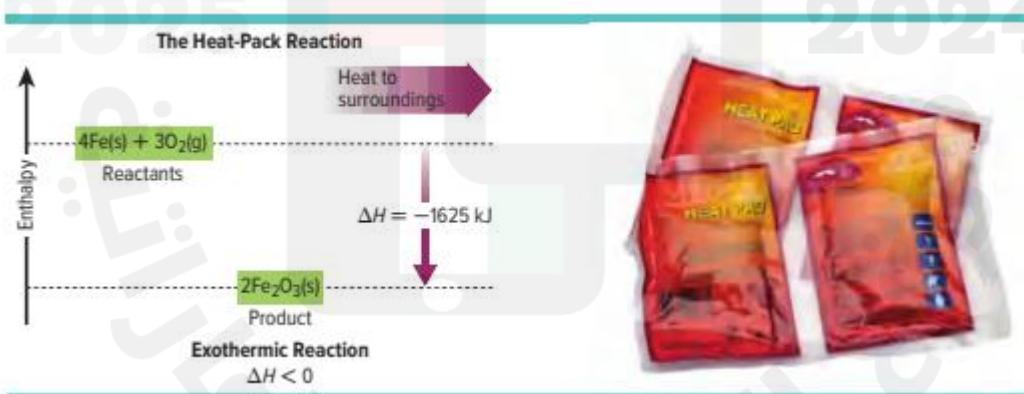
6- The temperature of a sample of water increases from 20.0°C to 46.6°C as it absorbs 5650 J of heat. What is the mass of the sample?

- A) 25.2 g
- B) 50.5 g
- C) 75.8 g
- D) 100.0 g



7-

- A) Heat flows from the system to the surroundings.
- B) Heat flows from the surroundings to the system.
- C) The temperature of the system increases, and the surroundings cool down.
- D) The system and surroundings both heat up.



8-

- A) The arrow points upwards, indicating heat is absorbed from the surroundings.
- B) The arrow points downward, indicating heat is released to the surroundings.
- C) The arrow points sideways, showing no change in heat.
- D) The diagram shows no energy change at all.

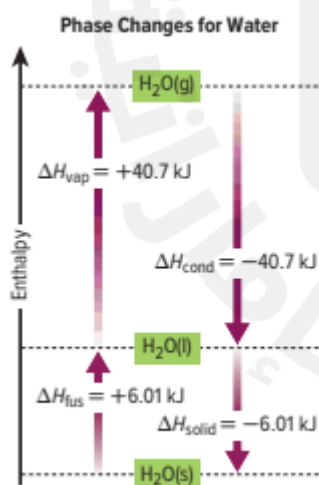
9- What does the positive value of  $\Delta H_{\text{rxn}}$  indicate in an endothermic reaction?



- A) Heat is released to the surroundings.
- B) Heat is absorbed from the surroundings.
- C) There is no change in heat.
- D) The reaction is at equilibrium.

10-For which of the following processes would the enthalpy change ( $\Delta H$ ) be positive?

- A) Combustion of methane
- B) Vaporization of water
- C) Freezing of water
- D) Condensation of steam



11- What is the value of  $\Delta H_{\text{vap}}$  for the vaporization of one mole of water?

- A) -40.7 kJ
- B) 40.7 kJ
- C) -6.01 kJ
- D) 6.01 kJ

12- Use Equations a and b to determine  $\Delta H$  for the following reaction.  
 $2\text{CO}(g) + 2\text{NO}(g) \rightarrow 2\text{CO}_2(g) + \text{N}_2(g)$   $\Delta H = ?$

- a.  $2\text{CO}(g) + \text{O}_2(g) \rightarrow 2\text{CO}_2(g)$   $\Delta H = -566.0$  kJ
- b.  $\text{N}_2(g) + \text{O}_2(g) \rightarrow 2\text{NO}(g)$   $\Delta H = -180.6$  kJ

- A) -385.4 kJ
- B) -566.0 kJ
- C) +385.4 kJ
- D) +180.6 kJ

13- Which of the following statements is true regarding the standard enthalpies of formation of nitrogen ( $\text{N}_2$ ) and oxygen ( $\text{O}_2$ )?

- A) The standard enthalpies of formation of nitrogen and oxygen are both positive.
- B) The standard enthalpies of formation of nitrogen and oxygen are both zero.
- C) The standard enthalpy of formation of nitrogen is zero, while the standard enthalpy of formation of oxygen is positive.
- D) The standard enthalpy of formation of nitrogen is positive, while the standard enthalpy of formation of oxygen is zero.

14- Which of the following reactions corresponds to the enthalpy of formation of  $\text{NO}_2(g)$

- A)  $\text{N}_2(g) + \text{O}_2(g) \rightarrow 2\text{NO}(g)$
- B)  $\text{N}_2(g) + 2\text{O}_2(g) \rightarrow 2\text{NO}_2(g)$
- C)  $2\text{NO}(g) + \text{O}_2(g) \rightarrow 2\text{NO}_2(g)$
- D)  $2\text{NO}_2(g) \rightarrow \text{N}_2(g) + 2\text{O}_2(g)$

Time (s)	[H <sub>2</sub> ] (M)	[Cl <sub>2</sub> ] (M)	[HCl] (M)
0.00	0.030	0.050	0.000
4.00	0.020	0.040	

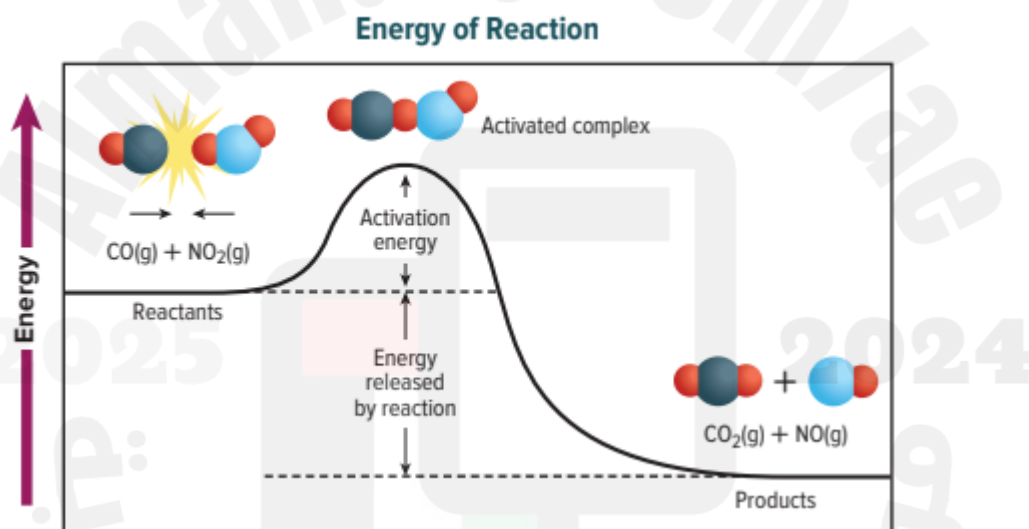
15- Calculate the average reaction rate expressed in moles H<sub>2</sub> consumed per liter per second.

a--0.0025

b- 0.0025

c- 0.025

d-0.25



16-

a-exothermic Reaction

b- endothermic Reaction

c-  $\Delta H$

d- H of products higher than H of reactants

Trial	Initial [A] (M)	Initial [B] (M)	Initial Rate (mol/(L·s))
1	0.100	0.100	$2.00 \times 10^{-3}$
2	0.200	0.100	$4.00 \times 10^{-3}$
3	0.200	0.200	$1.60 \times 10^{-2}$

17-

What is the order of the Reaction  $A+B \rightarrow C$

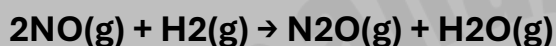
a-2

b-3

c-4

d-1

18- The following reaction is first order in  $H_2$  and second order in  $NO$  with a rate constant of  $2.90 \times 10^2$  (L<sup>2</sup>/(mol<sup>2</sup>·s)).



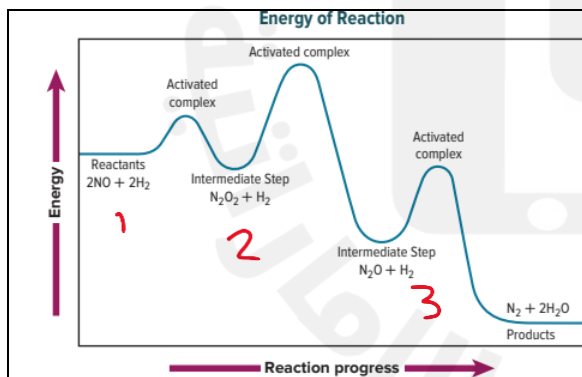
Calculate the instantaneous rate when the reactant concentrations are  $[NO] = 0.00200M$  and  $[H_2] = 0.00400M$

a- $4.64 \times 10^{-6}$  mol/(L·s).

b- $4.64 \times 10$  mol/(L·s).

c- $4.64 \times 10^{-5}$  mol/(L·s).

d- $4.54 \times 10^{-6}$  mol/(L·s).



19-

a-first reaction is the slowest

b- second reaction is the slowest

c- first and second reaction are the slowest

d- third reaction is the slowest



20- Predict whether a precipitate of  $\text{PbCl}_2$  will form if 100 mL of 0.0100M  $\text{NaCl}$  is added to 100 mL of 0.0200M  $\text{Pb}(\text{NO}_3)_2$

- a- A precipitate will form
- b- A precipitate will not form
- c- no change
- d-  $Q_s$  higher than  $K_{sp}$

