FROM SOLUTIONS TO KINETICS TO EQUILIBRIUM - PRACTICE TEST | NEW BRUNSWICK CHEMISTRY 121-122 · UNIT B · 25 QUESTIONS

From Solutions to Kinetics to Equilibrium — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A solution has 2 moles of solute in 4 litres. Its concentration in moles per litre is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A solution has 3 moles of solute in 2 litres. Its concentration in moles per litre is**

ANSWER _____

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3 **A solution has 0.5 moles of solute in 2 litres. Its concentration in moles per litre is**

ANSWER _____

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4 **A 2 molar solution of volume 3 litres contains how many moles**

ANSWER _____

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5 **A 0.5 molar solution is diluted from 2 litres to 4 litres. The new concentration in moles per litre is**

ANSWER _____

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6 **A reaction rate is measured as 0.4 moles per litre per minute. In 5 minutes the concentration change in moles per litre is**

ANSWER _____

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7 **A reaction produces 0.6 moles per litre in 3 minutes. The average rate in moles per litre per minute is**

ANSWER _____

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8 **At equilibrium the forward rate equals the reverse rate. If the forward rate is 0.3, the reverse rate is**

ANSWER _____

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9 **For a reaction A gives B, at equilibrium A is 0.2 molar and B is 0.8 molar. The equilibrium constant is**

ANSWER _____

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10 **For a reaction with products 0.9 molar and reactants 0.3 molar, the equilibrium constant is**

ANSWER _____

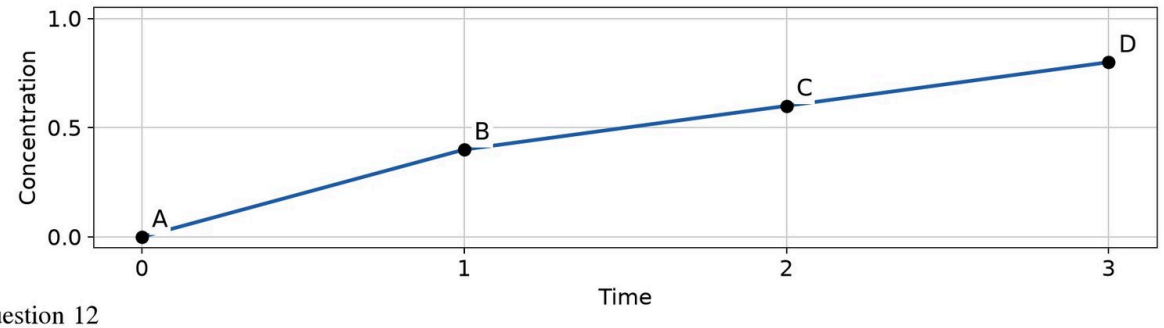
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11 **A catalyst increases a rate by a factor of 4. A rate of 0.2 becomes**

ANSWER _____

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12 **The graph shows concentration of product rising from 0 to 0.8 molar. The final concentration in moles per litre is**



Question 12

The graph shows concentration of product rising from 0 to 0.8 molar. The final concentration in moles per litre is

ANSWER

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13 **Increasing temperature usually increases reaction rate because collisions are**

A more frequent and more energetic

B less frequent

C less energetic

D fewer

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14 **Increasing surface area increases rate because more particles are**

A heated

B exposed

C dissolved

D charged

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15 **A catalyst increases rate without being**

A heated

B dissolved

C consumed

D charged

Understand It with Pulse | Flag a mistake

16 **At equilibrium the concentrations of reactants and products are**

A equal

B zero

C increasing

D constant

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17 **Le Chatelier principle predicts a system at equilibrium shifts to**

A counteract a change

B increase the change

C stop reacting

D reach zero

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18 **Adding reactant to an equilibrium system shifts the equilibrium**

A toward reactants

B toward products

C to zero

D nowhere

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19 **Increasing pressure on a gas equilibrium shifts toward the side with**

A more gas moles

B no gas

C fewer gas moles

D equal gas

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20 **A saturated solution contains the maximum solute that dissolves at that**

A pressure only

B volume

C mass

D temperature

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21 **Solubility of most solids in water increases with**

A pressure

B temperature

C volume

D mass

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22 **A solution with a low concentration is described as**

A concentrated

B dilute

C saturated

D supersaturated

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23 **What shared particle makes solubility decrease?**

A atom

B molecule

C ion

D electron

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24 **Collision theory requires collisions with sufficient energy and correct**

A temperature

B pressure

C volume

D orientation

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25 **An inhibitor decreases reaction rate by**

A interfering with the reaction

B adding energy

C increasing surface area

D diluting reactants

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	0.5	**10.**	3	**19.**	C
2.	1.5	**11.**	0.8	**20.**	D
3.	0.25	**12.**	0.8	**21.**	B
4.	6	**13.**	A	**22.**	B
5.	0.25	**14.**	B	**23.**	C
6.	2	**15.**	C	**24.**	D
7.	0.2	**16.**	D	**25.**	A
8.	0.3	**17.**	A		
9.	4	**18.**	B		

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