

Question # 1 of 30 (Start time: 04:58:45 PM, 30 June 2020)

Total Marks: 1

The reaction must be balanced with the coefficients written as the _____ values in order to get the correct value for K_c .

Select the correct option

- | | | |
|----------------------------------|--------------------------|--|
| ☒ | lowest possible integer | |
| ☐ | highest possible integer | |
| ☐ | constant value | |
| ☐ | zero | |

Click to Save Answer & Move to Next Question

Question # 2 of 30 (Start time: 04:59:39 PM, 30 June 2020)

Total Marks: 1

_____ is a measure of the effective concentration of a species under non-ideal conditions.

Select the correct option



Fugacity



Activity



saturation



none of these

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Question # 3 of 30 (Start time: 05:00:21 PM, 30 June 2020)

Total Marks: 1

Endergonic reaction is a reaction that absorbs energy from ?

Select the correct option

- | | | |
|----------------------------------|---------------|---|
| ☐ | products | / |
| ☐ | system | / |
| ☒ | surroundings | / |
| ☐ | none of these | / |

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Question # 4 of 30 (Start time: 05:01:01 PM, 30 June 2020)

Total Marks: 1

If _____ then the system is already at equilibrium

Select the correct option

- | | | |
|----------------------------------|---------------|--|
| ☐ | $Q > K_c$ | |
| ☒ | $Q = K_c$ | |
| ☐ | $Q < K_c$ | |
| ☐ | none of these | |

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Question # 5 of 30 (Start time: 05:02:00 PM, 30 June 2020)

Total Marks: 1

_____ is one where transfer of matter between system and surroundings can occur.

Select the correct option

- | | | |
|----------------------------------|------------------|---|
| ☒ | Open system | / |
| ☐ | close system | / |
| ☐ | isolated system | / |
| ☐ | adiabatic system | / |

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Question # 6 of 30 (Start time: 05:02:38 PM, 30 June 2020)

Total Marks: 1

Colligative properties are depends upon _____?

Select the correct option

- | | | |
|----------------------------------|-------------------------|---|
| ☒ | No. of solute particles | / |
| ☐ | nature of solute | / |
| ☐ | nature of solvent | / |
| ☐ | none of these | / |

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Question # 7 of 30 (Start time: 05:05:41 PM, 30 June 2020)

Total Marks: 1

_____ states that The enthalpy of a given chemical reaction is constant, regardless of the reaction happening in one step or many steps

Select the correct option



Charles's law



Hess's law



Van't Hoff equation



Raoult's law

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Question # 8 of 30 (Start time: 05:06:25 PM, 30 June 2020)

Total Marks: 1

Arrhenius's theory states that _____ exist in a solid substance and dissociated from each other once the solid dissolves.

Select the correct option

- | | | |
|----------------------------------|----------------|---|
| ☒ | ions | / |
| ☐ | atoms | / |
| ☐ | molecules | / |
| ☐ | group of atoms | / |

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Question # 9 of 30 (Start time: 05:06:59 PM, 30 June 2020)

Total Marks: 1

The standard enthalpy of formation of gaseous atoms from the element is known as the heat of _____?

Select the correct option

- | | | |
|----------------------------------|----------------------|---|
| ☒ | formation | / |
| ☐ | standard free energy | / |
| ☐ | atomization | / |
| ☐ | Gibbs free energy | / |

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Question # 10 of 30 (Start time: 05:08:25 PM, 30 June 2020)

Total Marks: 1

Endergonic reactions can also be pushed by coupling them to another reaction, which is strongly _____ through a shared intermediate.

Select the correct option



endergonic



exergonic



exothermic



endothermic

Click to Save Answer & Move to Next Question

Question # 11 of 30 (Start time: 05:09:05 PM, 30 June 2020)

Total Marks: 1

According to Le Chatelier's Principle decreasing the temperature of a system in dynamic equilibrium favors the _____?

Select the correct option

- | | | |
|----------------------------------|----------------------|---|
| ☒ | exothermic reaction | / |
| ☐ | endothermic reaction | / |
| ☐ | endergonic reaction | / |
| ☐ | none of these | / |

[Click to Save Answer & Move to Next Question](#)

Question # 12 of 30 (Start time: 05:10:58 PM, 30 June 2020)

Total Marks: 1

The volume occupied by 1 mole of a gas under critical conditions is called the _____?

Select the correct option

- | | | |
|----------------------------------|----------------------|--|
| ☐ | Vander Waal Volume | |
| ☐ | Vander Waal Equation | |
| ☒ | Critical Volume | |
| ☐ | Constant Volume | |

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Question # 13 of 30 (Start time: 05:12:04 PM, 30 June 2020)

Total Marks: 1

Diffusion is an example of?

Select the correct option

- | | | |
|----------------------------------|----------------------|--|
| ☒ | irreversible process | |
| ☐ | reversible process | |
| ☐ | equilibrium | |
| ☐ | spontaneous | |

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Question # 14 of 30 (Start time: 06:31:56 PM, 30 June 2020)

Total Marks: 1

Thermal Equilibrium between a system and its surroundings, there must be no change in the _____ of the system or surroundings when they are separated by a thermally conducting wall.

Select the correct option



state



properties



temperature



state function

Click to Save Answer & Move to Next Question

Question # 15 of 30 (Start time: 06:33:04 PM, 30 June 2020)

Total Marks: 1

Gas becomes ideal in the _____-density limit.

Select the correct option

- | | | |
|----------------------------------|----------|--|
| ☒ | zero | |
| ☐ | constant | |
| ☐ | affinity | |
| ☐ | maximum | |

Click to Save Answer & Move to Next Question

Question # 16 of 30 (Start time: 06:33:40 PM, 30 June 2020)

Total Marks: 1

The change in the Gibbs free energy of the system is equal to the change in the enthalpy of the system minus the change in the product of the temperature times the _____ of the system.

Select the correct option

- | | | |
|----------------------------------|--------------|---|
| ☒ | entropy | / |
| ☐ | enthalpy | / |
| ☐ | heat energy | / |
| ☐ | surroundings | / |

Click to Save Answer & Move to Next Question

Question # 17 of 30 (Start time: 06:34:34 PM, 30 June 2020)

Total Marks: 1

The "effective concentration", known as ?

Select the correct option



molar concentration



activity



fugicity



active concentration

Click to Save Answer & Move to Next Question

Question # 18 of 30 (Start time: 06:35:02 PM, 30 June 2020)

Total Marks: 1

The reaction quotient Q is a measure of the relative amounts of products and reactants present in a reaction at a given _____?

Select the correct option



temperature



pressure



time



distance

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Question # 19 of 30 (Start time: 06:35:33 PM, 30 June 2020)

Total Marks: 1

If a sufficiently large number of individual interactions are involved, then the direction will always be in the direction of _____ entropy.

Select the correct option

- | | | |
|----------------------------------|-----------|--|
| ☒ | increased | |
| ☐ | decreased | |
| ☐ | constant | |
| ☐ | zero | |

Click to Save Answer & Move to Next Question

Question # 20 of 30 (Start time: 06:36:16 PM, 30 June 2020)

Total Marks: 1

It is impossible to construct a device that operates in a cycle and whose sole effect is to transfer heat from a cooler body to a hotter body.

Select the correct option

- | | | |
|----------------------------------|------------------------|--|
| ☐ | Kevin-Planck Statement | |
| ☒ | Clausius Statement | |
| ☐ | Boyle's statement | |
| ☐ | None of these | |

Click to Save Answer & Move to Next Question

Question # 22 of 30 (Start time: 06:37:24 PM, 30 June 2020)

Total Marks: 1

Water's heat of vaporization is _____ kJ/mol.

Select the correct option

- | | | |
|----------------------------------|----|--|
| ☐ | 71 | |
| ☐ | 60 | |
| ☒ | 41 | |
| ☐ | 33 | |

Click to Save Answer & Move to Next Question

Question # 23 of 30 (Start time: 06:38:17 PM, 30 June 2020)

Total Marks: 1

Because of water's _____, it is able to dissolve or dissociate many particles

Select the correct option

- | | | |
|----------------------------------|-------------|--|
| ☐ | Velocity | |
| ☒ | Polarity | |
| ☐ | Viscosity | |
| ☐ | Temperature | |

Click to Save Answer & Move to Next Question

Question # 24 of 30 (Start time: 06:38:56 PM, 30 June 2020)

Total Marks: 1

The specific _____ is the quantity of heat that is necessary to raise one unit of weight without any change in temperature.

Select the correct option

- | | | |
|----------------------------------|----------------------|---|
| ☒ | heat of vaporization | / |
| ☐ | heat of fusion | / |
| ☐ | specific heat | / |
| ☐ | heat of submission | / |

Click to Save Answer & Move to Next Question

Question # 24 of 30 (Start time: 06:38:56 PM, 30 June 2020)

Total Marks: 1

The specific _____ is the quantity of heat that is necessary to raise one unit of weight without any change in temperature.

Select the correct option

- | | | |
|----------------------------------|----------------------|---|
| ☒ | heat of vaporization | / |
| ☐ | heat of fusion | / |
| ☐ | specific heat | / |
| ☐ | heat of submission | / |

Click to Save Answer & Move to Next Question

Question # 25 of 30 (Start time: 06:39:34 PM, 30 June 2020)

Total Marks: 1

Fugacity Measures_____.

Select the correct option

- | | | |
|----------------------------------|-----------------------|--|
| ☐ | Ideality of Gas. | |
| ☒ | Nonideality of a Gas. | |
| ☐ | pressure of a gas. | |
| ☐ | Volume of a gas | |

Click to Save Answer & Move to Next Question

Question # 26 of 30 (Start time: 06:39:59 PM, 30 June 2020)

Total Marks: 1

Freezing point depression is a _____ property observed in solutions that results from the introduction of solute molecules to a solvent

Select the correct option



Electrical



Analytical



Colligative



Chemical

Click to Save Answer & Move to Next Question

Question # 27 of 30 (Start time: 06:40:43 PM, 30 June 2020)

Total Marks: 1

The _____ provides information about the temperature dependence of the equilibrium constant.

Select the correct option

- | | | |
|----------------------------------|--------------------------|--|
| ☐ | Hess's law | |
| ☐ | Gibbs Helmholtz equation | |
| ☒ | Van't Hoff equation | |
| ☐ | None of these | |

Click to Save Answer & Move to Next Question

Question # 28 of 30 (Start time: 06:41:55 PM, 30 June 2020)

Total Marks: 1

In a chemical reaction, If $K > 1$ then which one of the following statement is true?

Select the correct option

- | | | |
|----------------------------------|----------------------------------|--|
| ☐ | Equilibrium favors the reactants | |
| ☐ | Temperature of reaction changes | |
| ☒ | Equilibrium favors products | |
| ☐ | Speed of reaction changes | |

[Click to Save Answer & Move to Next Question](#)

Question # 29 of 30 (Start time: 06:42:37 PM, 30 June 2020)

Total Marks: 1

The fugacity coefficient (Φ) is defined as the ratio of fugacity to its value at the _____?

Select the correct option



constant pressure



ideal state



critical state



constant temperature

Click to Save Answer & Move to Next Question

Question # 30 of 30 (Start time: 06:43:28 PM, 30 June 2020)

Total Marks: 1

The density of dilute aqueous solutions are close to _____?

Select the correct option



1 g/1000ml



1 mg/mL



1 g/mL



1 g/100mL

Click to Save Answer & Move to Next Question