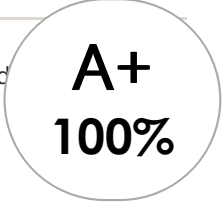


20 Multiple choice questions



A+
100%

1. is the heat content of a system; the total of all the kinetic and potential energies for one mole of a substance
 - a. calorimetry
 - b. **CORRECT: enthalpy (ΔH)**
 - c. equilibrium
 - d. density

2. the number of moles of solute per litre of solution
 - a. dilution
 - b. density
 - c. **CORRECT: molarity**
 - d. calorimetry

3. is the strongest of the intermolecular forces; the slightly positive charge on the hydrogen of one molecule is strongly attracted to the slightly negative charge on the F, O or N of another molecule
 - a. density
 - b. **CORRECT: hydrogen bonding**
 - c. cohesion
 - d. dilution

4. is where energy is released to the surroundings
 - a. cohesion
 - b. dilution
 - c. **CORRECT: exothermic reaction**
 - d. endothermic reaction

5. the mass of a substance divided by its volume; units are g/cm^3 ; i.e.. lead has a density of 11.3 g/cm^3
 - a. molarity
 - b. cohesion
 - c. **CORRECT: density**
 - d. kelvin

6. the unequal charge distribution between two atoms so that the atoms of a bond have a δ^+ and a δ^-
- kelvin
 - CORRECT: dipole**
 - density
 - joule
7. the forces between molecules; e.g.. dispersion forces, dipole-dipole forces and hydrogen bonding
- non-polar molecule
 - dipole-dipole force
 - dispersion force
 - CORRECT: intermolecular forces**
8. the dissolving of a substance in a liquid
- CORRECT: dissolution**
 - dilution
 - dipole
 - cohesion
9. or state symbols- (s), (l), (aq), (g), -in equations show the state of each substance
- calorimetry
 - dipole
 - cohesion
 - CORRECT: phase descriptors**
10. in terms of a solution; refers to the addition of water to a solution to decrease concentration; the number of moles of a solute is unchanged
- dissolution
 - CORRECT: dilution**
 - cohesion
 - kelvin

11. the attraction between the molecules of a liquid; it holds the particles of the liquid together
- CORRECT: cohesion**
 - dilution
 - density
 - molarity
12. for a reversible reaction occurs when the rate of the forward reaction equals the rate of the back reaction
- molarity
 - CORRECT: equilibrium**
 - dilution
 - dynamic equilibrium
13. an equilibrium where molecules are undergoing the forward as well as the back reaction, at the same rate; e.g.. liquid water and water vapour in a sealed container
- CORRECT: dynamic equilibrium**
 - molarity
 - dilution
 - equilibrium
14. a weak attractive force between molecules due to the attraction between negative electrons of one molecule and the positive nucleus of another molecule
- dipole
 - cohesion
 - CORRECT: dispersion force**
 - dipole-dipole force
15. is where energy is absorbed from the surroundings
- dilution
 - cohesion
 - CORRECT: endothermic reaction**
 - exothermic reaction

16. an attractive intermolecular force between the dipoles of neighbouring polar molecules
- dispersion force
 - CORRECT: dipole-dipole force**
 - dissolution
 - dipole
17. has no overall dipole; some molecules are non-polar if they are symmetrical so dipoles cancel, as in linear $O = C = O$; elements such as O_2 are non-polar as the atoms share the electrons equally and there is no dipole
- dipole
 - calorimetry
 - CORRECT: non-polar molecule**
 - dipole-dipole force
18. the scientific temperature scale with absolute zero as 0 K; a change of one kelvin is the same as a change of one degree Celsius; $K = ^\circ C + 273$
- dilution
 - CORRECT: kelvin**
 - dipole
 - density
19. is the SI unit for energy, such as heat
- CORRECT: joule**
 - density
 - kelvin
 - dipole
20. the measurement of heat changes associated with chemical reactions and physical processes
- density
 - molarity
 - CORRECT: calorimetry**
 - joule