# Sample Practice Quiz Questions

1. What is the measure of the average kinetic energy of particles in a substance?

A.: Temperature  
B.: Heat  
C.: Thermal Energy  
D.: Conduction

Correct Answer: A. Temperature

2. Which type of energy transfer occurs between objects at different temperatures?

A.: Heat  
B.: Convection  
C.: Radiation  
D.: Conduction

Correct Answer: A. Heat

3. In which direction does heat energy transfer between objects?

A.: From a cooler object to a hotter object  
B.: From a hotter object to a cooler object  
C.: Horizontally  
D.: Vertically

Correct Answer: B. From a hotter object to a cooler object

4. What type of energy transfer does not require direct contact between objects?

A.: Conduction  
B.: Convection  
C.: Radiation  
D.: Expansion

Correct Answer: C. Radiation

5. Which phenomenon causes water to boil from the lower parts and spread throughout?

A.: Conduction  
B.: Convection  
C.: Radiation  
D.: Expansion

Correct Answer: B. Convection

6. What is the boiling point of water in degrees Celsius?

A.: 0°C  
B.: 100°C  
C.: 273.15°C  
D.: 32°C

Correct Answer: B. 100°C

7. Which scale is used to measure temperature in the metric system?

A.: Fahrenheit  
B.: Rankine  
C.: Kelvin  
D.: Celsius

Correct Answer: D. Celsius

8. What is the specific heat formula for calculating sensible heat?

A.: Q = m \* c \* ∆t  
B.: Q = n \* ∆H  
C.: Q = m \* c  
D.: Q = m \* c \* t

Correct Answer: A. Q = m \* c \* ∆t

9. Which type of force requires physical contact between objects?

A.: Gravitational Force  
B.: Magnetic Force  
C.: Contact Force  
D.: Electrical Force

Correct Answer: C. Contact Force

10. What is the condition where opposing forces on an object are balanced?

A.: Thermal Equilibrium  
B.: Mechanical Equilibrium  
C.: Dynamic Equilibrium  
D.: Force Equilibrium

Correct Answer: B. Mechanical Equilibrium

11. Which type of quantity has both magnitude and direction?

A.: Scalar Quantity  
B.: Vector Quantity  
C.: Dynamic Quantity  
D.: Static Quantity

Correct Answer: B. Vector Quantity

12. What is the formula for converting Fahrenheit to Celsius?

A.: ℃ = 5/9(℉ + 32)  
B.: ℉ = 5/9(℃ + 32)  
C.: ℉ = 9/5(℃ - 32)  
D.: ℃ = 9/5(℉ - 32)

Correct Answer: A. ℃ = 5/9(℉ + 32)

13. What is the main source of heat on earth?

A.: Moon  
B.: Stars  
C.: Sun  
D.: Mars

Correct Answer: C. Sun

14. What is the phase change of a substance to another with constant temperature?

A.: Sensible Heat  
B.: Latent Heat  
C.: Convection  
D.: Thermal Expansion

Correct Answer: B. Latent Heat

15. Which type of metal strip is commonly used in thermostats?

A.: Aluminum Strips  
B.: Iron Strips  
C.: Bimetallic Strips  
D.: Gold Strips

Correct Answer: C. Bimetallic Strips

16. What is the transfer of heat through electromagnetic waves called?

A.: Thermal Conduction  
B.: Thermal Convection  
C.: Radiation  
D.: Heat Convection

Correct Answer: C. Radiation

17. Which scale is used to measure temperature in the imperial system?

A.: Celsius  
B.: Kelvin  
C.: Rankine  
D.: Fahrenheit

Correct Answer: D. Fahrenheit

18. What is the constant random motion of particles in a substance called?

A.: Temperature  
B.: Heat  
C.: Thermal Energy  
D.: Conduction

Correct Answer: C. Thermal Energy

19. In which state does matter have a definite shape and volume?

A.: Solid  
B.: Liquid  
C.: Gas  
D.: Plasma

Correct Answer: A. Solid

20. What is the expansion of most materials when the temperature is increased?

A.: Thermal Conduction  
B.: Thermal Expansion  
C.: Heat Convection  
D.: Radiation

Correct Answer: B. Thermal Expansion