Chapter 21
Thermal Properties of Matter

MCQ 1: Aluminum has the specific heat capacity of

A. 450 J kg^{-1} $°C^{-1}$

B. 900 J kg^{-1} $°C^{-1}$

C. 1350 J kg^{-1} $°C^{-1}$

D. 1800 J kg^{-1} $°C^{-1}$

MCQ 2: In a laboratory, bunsen burner is used to increase the temperature of lime from 10 °C to 50 °C with the thermal energy of 80000 J. If the mass of the lime is 20 kg the specific heat capacity of the lime would be

A. 25 J kg^{-1} $°C^{-1}$

B. 50 J kg^{-1} $°C^{-1}$

C. 75 J kg^{-1} $°C^{-1}$

D. 100 J kg^{-1} $°C^{-1}$

MCQ 3: The heat capacity of sodium metal is 1500 JK^{-1}, if the mass of the sodium metal is 75 kg, the specific heat capacity would be

A. 10 J kg^{-1} $°C^{-1}$

B. 20 J kg^{-1} $°C^{-1}$

C. 40 J kg^{-1} $°C^{-1}$

D. 80 J kg^{-1} $°C^{-1}$

MCQ 4: The internal energy comprises of two types of energies, those are

A. mechanical and electrical energy

B. magnetic and electrical energy

C. kinetic and potential energy

D. kinetic and magnetic energy

MCQ 5: A pure substance would freeze or solidify at its

A. boiling point

B. condensation point

C. melting point

D. sublimation point

MCQ 6: The amount of energy required to change the liquid to gas and vice versa without any change in temperature is termed as

A. Latent Heat of Fusion

B. Latent Heat of Vaporization

C. Heat Capacity

D. Specific Heat Capacity

MCQ 7: When the state is being changes from gas to liquid through the process of condensation, the temperature

A. increases

B. decreases

C. remains constant

D. may increase or decrease

MCQ 8: A milkman boils the milk before distributing it in the pots. He raises the temperature of the milk from 10 °C to 130 °C with the thermal energy of 120000 J. If the mass of the milk is 25 kg, the specific heat capacity of the milk would be

A. 40 J kg^{-1} $°C^{-1}$

B. 80 J kg^{-1} $°C^{-1}$

C. 120 J kg^{-1} $°C^{-1}$

D. 160 J kg^{-1} $°C^{-1}$

MCQ 9: The energy due to which the molecules held at a fixed position vibrate, this energy is termed as

A. external energy

B. internal energy

C. chemical energy

D. physical energy

MCQ 10: In an experiment, 100 g of liquid requires 12600 J of thermal energy to raise it from 30 °C to 60 °C, the thermal capacity of 100 g of water is

A. 300 J K

B. 420 J K

C. 420 J K^{-1}

D. 300 J K^{-1}

MCQ 11: Mercury has the boiling point of

A. 57 °C

B. 157 °C

C. 257 °C

D. 357 °C

MCQ 12: When you hang your t-shirt or jeans on a rope to dry it out, it dries fast even if there is no sun, this is due to

A. boiling of the perfume

B. evaporation of the liquid

C. melting of the liquid

D. condensing of the duedorent

MCQ 13: The formula for specific latent heat of fusion is

A. $L_f = m/l_f$

B. $L_f = l_f/m$

C. $l_f = L_f \times m$

D. $l_f = L_f/m$

MCQ 14: The unit for specific latent heat is

A. Watts per Joule

B. Joules per Watt

C. Joules per Kilogram

D. Pascals per Watt

MCQ 15: Zinc as the specific heat capacity of

A. 250 J kg^{-1} $°C^{-1}$

B. 315 J kg^{-1} $°C^{-1}$

C. 390 J kg^{-1} $°C^{-1}$

D. 415 J kg^{-1} $°C^{-1}$

MCQ 16: 300 g of water requires 30000 J of thermal energy to raise the temperature from 25 °C to 85 °C, the heat capacity of the water is

A. 100 J K^{-1}

B. 200 J K^{-1}

C. 400 J K^{-1}

D. 500 J K^{-1}

MCQ 17: The heat capacity of a chemical is 750 J K^{-1} and the mass is 15 kg. The heat capacity of the chemical would be

A. 25 J kg^{-1} $°C^{-1}$

B. 50 J kg^{-1} $°C^{-1}$

C. 75 J kg^{-1} $°C^{-1}$

D. 100 J kg^{-1} $°C^{-1}$

MCQ 18: Latent heat stands for

A. absorbed heat

B. visible heat

C. stored heat

D. hidden heat

MCQ 19: A student heats up an impure water from 40 °C to 60 °C with the thermal energy of 5000 J, the heat capacity of the water would be

A. 250 J K^{-1}

B. 125 J K^{-1}

C. −250 J K^{-1}

D. −125 J K^{-1}

MCQ 20: An iron ball with a mass of 200 kg is raised from a temperature of 20 °C to 40 °C, if the thermal energy used by the iron ball is 20000 J the specific heat capacity of the iron ball would be

A. 5 J kg^{-1} $°C^{-1}$

B. 10 J kg^{-1} $°C^{-1}$

C. 15 J kg^{-1} $°C^{-1}$

D. 20 J kg^{-1} $°C^{-1}$

MCQ 21: During the process of melting, the thermal energy that is absorbed during the process of melting is called

A. specific latent heat

B. latent heat of fusion

C. latent heat of fission

D. latent heat capacity

MCQ 22: Melting occurs at a constant temperature for

A. impure substances only

B. pure substances only

C. impure and pure substances both

D. none

MCQ 23: Specific heat capacity of mercury is

A. 120 J kg^{-1} $°C^{-1}$

B. 140 J kg^{-1} $°C^{-1}$

C. 160 J kg^{-1} $°C^{-1}$

D. 180 J kg^{-1} $°C^{-1}$

MCQ 24: In the process of solidification, thermal energy is

A. taken in

B. given out

C. neither given out nor taken in

D. thermal energy isn't needed

MCQ 25: The formula for specific heat capacity is

A. $h = \Delta\theta/m$, where m is mass

B. $q = m/\Delta\theta$ where m is mass

C. $c = 1/h(\Delta\theta)$

D. $c = 1/m(Q/\Delta\theta)$

MCQ 26: A piece of carbon of mass 0.40 kg requires thermal energy of 20 J to get heated from a temperature of 5 °C to 9 °C, the specific heat capacity of the carbon would be

A. 1.25 J kg^{-1} $°C^{-1}$

B. 12.5 J kg^{-1} $°C^{-1}$

C. 125 J kg^{-1} $°C^{-1}$

D. 1250 J kg^{-1} $°C^{-1}$

MCQ 27: In an experiment, 250 g of water uses 5000 J of thermal energy to raise its temperature from 50 °C to 75 °C, the heat capacity of the water is

A. 200 J K^{-1}

B. 400 J K^{-1}

C. −100 J K^{-1}

D. −200 J K^{-1}

MCQ 28: In the process of melting, thermal energy is

A. taken in

B. given out

C. neither given out nor taken in

D. thermal energy isn't needed

MCQ 29: The kinetic component of internal energy is due to

A. the vibration of matter

B. the intermolecular forces

C. the collision of particles

D. the vibration of particles

MCQ 30: The absorption or release of thermal energy changes the

A. external energy of matter

B. internal energy of matter

C. both internal and external energy of matter

D. none of the energies

MCQ 31: Suppose the air is stable and not moving, this would

A. increase the rate of evaporation

B. decrease the rate of evaporation

C. not affect the rate of evaporation

D. disturb the rate of evaporation

MCQ 32: During the evaporation process, the thermal energy is used from

A. the surface of the liquid

B. the surroundings

C. the bottom through the base

D. the whole liquid

MCQ 33: The standard symbol for heat capacity is

A. H

B. C

C. Q

D. E

MCQ 34: A scientist raises the temperature of a solid of mass 40 kg from 20 °C to 40 °C, if the energy used by the solid is 8000 J, the specific heat capacity of the solid would be

A. 2 J kg^{-1} $°C^{-1}$

B. 5 J kg^{-1} $°C^{-1}$

C. 10 J kg^{-1} $°C^{-1}$

D. 20 J kg^{-1} $°C^{-1}$

MCQ 35: The specific latent heat of hot chocolate is 60 J kg^{-1} and its latent heat is 3 J, the mass of the hot chocolate would be

A. 180 J

B. 20 J

C. 63 J

D. 57 J

MCQ 36: L_v is the symbol for

A. Latent heat of Fusion

B. Specific Latent Heat of Vaporization

C. Specific Latent Heat of Fusion

D. Latent Heat of Vaporization

MCQ 37: The boiling point of hydrogen is

A. −353 °C

B. −253 °C

C. −153 °C

D. −53 °C

MCQ 38: In the process of condensation, thermal energy is

A. taken in

B. given out

C. neither given out nor taken in

D. thermal energy isn't needed

MCQ 39: The amount of thermal energy required to change the state of 1 kg of object from liquid to gas or vice versa is termed as

A. Specific Latent Heat of Fusion

B. Specific Latent Heat of Vaporization

C. Heat Capacity

D. Specific Heat Capacity

MCQ 40: The particular temperature on which a liquid boils is known as

A. boiling point

B. condensation point

C. melting point

D. sublimation point

MCQ 41: In the science lab, a student heats up a chemical from 10 °C to 25 °C which requires the thermal energy of 30000 J. If the mass of the object is 40 kg, the specific heat capacity of the chemical would be

A. 25 J kg^{-1} $°C^{-1}$

B. 50 J kg^{-1} $°C^{-1}$

C. 75 J kg^{-1} $°C^{-1}$

D. 100 J kg^{-1} $°C^{-1}$

MCQ 42: Evaporation takes place

A. throughout the liquid

B. only at the surface

C. from the sides only

D. at the bottom only

MCQ 43: The specific heat capacity of salty (sea) water is

A. 1900 J kg^{-1} $°C^{-1}$

B. 2900 J kg^{-1} $°C^{-1}$

C. 3900 J kg^{-1} $°C^{-1}$

D. 4900 J kg^{-1} $°C^{-1}$

MCQ 44: As the intermolecular bonds are formed, the thermal energy is

A. absorbed

B. released

C. stored

D. destroyed

MCQ 45: In a laboratory, 200 g of mercury requires 30000 J of energy is used to raise the temperature from 10 °C to 25 °C, the heat capacity of the mercury would be

A. 1000 J K^{-1}

B. 2000 J K^{-1}

C. −2000 J K^{-1}

D. −1000 J K^{-1}

MCQ 46: During the process of solidification, when the liquid is being changed into solid, the temperature at that period would

A. increase

B. decrease

C. remain constant

D. may increase or decrease

MCQ 47: In condensation, which change of state takes place?

A. Gas to Solid

B. Gas to Liquid

C. Liquid to Gas

D. Liquid to Solid

MCQ 48: Ether has the boiling point of

A. 15 °C

B. 25 °C

C. 35 °C

D. 45 °C

MCQ 49: The reverse process of boiling is

A. boiling

B. solidification

C. condensation

D. sublimation

MCQ 50: Increased surface area would

A. increase the rate of evaporation

B. decrease the rate of evaporation

C. not affect the rate of evaporation

D. disturb the rate of evaporation

MCQ 51: An object has a specific latent heat of 24 Jkg^{-1} and the mass of the object is 2 kg. The latent heat of the object would be

A. 12 J

B. 48 J

C. 26 J

D. 22 J

MCQ 52: Specific heat capacity of glass is

A. 635 J kg^{-1} $°C^{-1}$

B. 670 J kg^{-1} $°C^{-1}$

C. 705 J kg^{-1} $°C^{-1}$

D. 740 J kg^{-1} $°C^{-1}$

MCQ 53: The solid melts because the

A. intermolecular bonds get weak

B. thermal energy increases the rate of kinetic energy

C. thermal energy helps in breaking the intermolecular bonds between the particles

D. particles start vibrating more vigorously due to thermal energy

MCQ 54: A person boils water from 75 °C, the water uses thermal energy of 10000 J, the heat capacity of the water is

A. 200 J K^{-1}

B. −200 J K^{-1}

C. 400 J K^{-1}

D. −400 J K^{-1}

MCQ 55: l_f is the symbol for

A. Latent heat of Fusion

B. Specific Latent Heat of Vaporization

C. Specific Latent Heat of Fusion

D. Latent Heat of Vaporization

MCQ 56: The solid is turned to liquid because

A. after the intermolecular bonds are broken down the particles are now free to move

B. the particles collide with each other

C. kinetic energy increases the rate of thermal energy

D. the particles start vibrating more vigorously

MCQ 57: Melting point of tin is

A. 32 °C

B. 132 °C

C. 232 °C

D. 332 °C

MCQ 58: When the solid is changing to liquid, at that period the temperature

A. increases

B. decreases

C. remains constant

D. may increase or decrease

MCQ 59: If the temperature is decreased, the rate of evaporation would

A. increase

B. decrease

C. remain same

D. may increase or decrease

MCQ 60: The amount of thermal energy required to raise the temperature of 1 kg of substance by 1 K (1 °C) is termed as

A. Heat capacity

B. Specific Heat Capacity

C. Latent Heat

D. Specific Latent Heat

MCQ 61: The process in which solid is turned to gas is termed as

A. solidification

B. boiling

C. condensation

D. sublimation

MCQ 62: The SI unit for the specific heat capacity is

A. J kg^{-1} $°C^{-1}$

B. J kg^{-1}

C. J K^{-1}

D. J $°F^{-1}$

MCQ 63: When you apply a duedorent on your body, the cooling effect on the skin is due to

A. boiling of the perfume

B. evaporation of the liquid

C. melting of the liquid

D. condensing of the duedorent

MCQ 64: The process in which liquid is turned to solid is termed as

A. melting

B. boiling

C. freezing

D. condensation

MCQ 65: If the latent heat of fusion is 120 J and the mass of the object is 10 kg, the specific latent heat would be

A. 8.3 J kg^{-1}

B. 10 J kg^{-1}

C. 12 J kg^{-1}

D. 120 J kg^{-1}

MCQ 66: The specific heat capacity of lead is

A. 120 J kg^{-1} $°C^{-1}$

B. 130 J kg^{-1} $°C^{-1}$

C. 150 J kg^{-1} $°C^{-1}$

D. 160 J kg^{-1} $°C^{-1}$

MCQ 67: Heat absorbed or released by the same state of matter is represented by

A. $Q = mc\Delta\theta$

B. $Q = mc/\Delta\theta$

C. $Q = m/c\Delta\theta$

D. $Q = \Delta\theta/mc$

MCQ 68: When there is no change of state, upon heating the temperature would

A. increase

B. decrease

C. remain constant

D. may increase or decrease

MCQ 69: The turning of liquid into gas is termed as

A. melting

B. boiling

C. freezing

D. condensation

MCQ 70: A solid of mass 120 kg has the heat capacity of 3600 JK^{-1}, the specific heat capacity of the solid would be

A. 30 J kg^{-1} $°C^{-1}$

B. 60 J kg^{-1} $°C^{-1}$

C. 90 J kg^{-1} $°C^{-1}$

D. 120 J kg^{-1} $°C^{-1}$

MCQ 71: When solid is turned to liquid, the process is called

A. melting

B. boiling

C. freezing

D. condensation

MCQ 72: The formula for calculating the heat capacity is

A. $H = \Delta\theta/Q$

B. $Q = C/\Delta\theta$

C. $Q = H/\Delta\theta$

D. $C = Q/\Delta\theta$

MCQ 73: Formula for the specific heat capacity is

A. $c = C/\Delta\theta$

B. $c = Q/\Delta\theta$

C. $c = C/m$

D. $c = \Delta\theta/m$

MCQ 74: The potential component of internal energy is due to

A. the stretch and compression of intermolecular bonds as the particles are

heated

B. the stretch and compression of intermolecular bonds as the particles vibrate

C. the stretch and compression of intermolecular bonds as the particle collide

D. the stretch of the intermolecular bonds as the particles are heated

MCQ 75: In which of the following, Kinetic energy is the highest and intermolecular bonds are the weakest?

A. Solid

B. Gel

C. Liquid

D. Gas

MCQ 76: The higher the temperature the vibration of particles would be

A. softer

B. vigorous

C. normal

D. may get vigorous or may become softer

MCQ 77: Boiling is

A. slower than evaporation

B. quicker than evaporation

C. same as evaporation

D. totally different thing

MCQ 78: The liquid turns back to solid while freezing because

A. intermolecular bonds get strong

B. kinetic energy increases

C. vibration increases

D. collision increases

MCQ 79: Iron has the specific heat capacity of

A. 460 J kg^{-1} $°C^{-1}$

B. 500 J kg^{-1} $°C^{-1}$

C. 540 J kg^{-1} $°C^{-1}$

D. 580 J kg^{-1} $°C^{-1}$

MCQ 80: During the process of boiling, what energy conversion takes place?

A. Kinetic energy to Thermal energy

B. Thermal energy to Kinetic energy

C. Potential energy to Kinetic energy

D. Kinetic energy to Potential energy

MCQ 81: An electric kettle raises the temperature of tea from 50 °C to 125 °C with the usage of 15000 J of thermal energy, the heat capacity of the tea is

A. 50 J K^{-1}

B. 100 J K^{-1}

C. 200 J K^{-1}

D. 400 J K^{-1}

MCQ 82: Bubbles are formed in the liquid during

A. boiling

B. evaporation

C. vaporization

D. melting

MCQ 83: The thermal energy absorbed without any change in temperature in boiling is termed as

A. Latent heat of Fusion

B. Latent heat of Fission

C. Latent Heat of Vaporization

D. Heat Capacity of Vaporization

MCQ 84: The heat capacity of a liquid is 250 JK^{-1}, if its mass is 50 kg the specific heat capacity of the liquid would be

A. 1250 J kg^{-1} $°C^{-1}$

B. 50 J kg^{-1} $°C^{-1}$

C. 125 J kg^{-1} $°C^{-1}$

D. 5 J kg^{-1} $°C^{-1}$

MCQ 85: The reverse process of melting is

A. boiling

B. solidification

C. condensation

D. sublimation

MCQ 86: Evaporation is

A. slower than boiling

B. quicker than boiling

C. same as boiling

D. totally different thing

MCQ 87: In the process of solidification, which change of state takes place?

A. Liquid to solid

B. Gas to solid

C. Gas to liquid and then to solid

D. Semi-solid to solid

MCQ 88: The unit for latent heat is

A. Watts

B. Joules

C. Ohms

D. Pascals

MCQ 89: The latent heat of an ice cube of mass 0.2 g is 20 J, the specific latent heat of the ice cube would be

A. 4 J kg^{-1}

B. 100 J kg^{-1}

C. 10 J kg^{-1}

D. 40 J kg^{-1}

MCQ 90: The SI unit for thermal energy is

A. Joules

B. Ohms

C. Pascals

D. Watts

MCQ 91: When the matter is being changed from liquid to gas, the temperature

A. increases

B. decreases

C. remains constant

D. may increase or decrease

MCQ 92: The temperature at which a substance melts, that particular temperature is termed as

A. Melting point

B. Solidification point

C. Boiling point

D. Condensation point

MCQ 93: The boiling point of alcohol is

A. 79 °C

B. 89 °C

C. 99 °C

D. 109 °C

MCQ 94: Energy released or absorbed during change of state is known as

A. Heat capacity

B. Latent heat

C. Thermal capability

D. Thermal oxidation

MCQ 95: A person boils water of mass 150 kg from the temperature of 85 °C with the thermal energy of 22500 J, the specific heat capacity of the water is

A. 5 J kg^{-1} $°C^{-1}$

B. 7.5 J kg^{-1} $°C^{-1}$

C. 10 J kg^{-1} $°C^{-1}$

D. 15 J kg^{-1} $°C^{-1}$

MCQ 96: Boiling point of oxygen is

A. −483 °C

B. −383 °C

C. −283 °C

D. −183 °C

MCQ 97: Boiling takes place

A. throughout the liquid

B. only at the surface

C. from the sides only

D. at the bottom only

MCQ 98: A student heats up a liquid from 20 °C to 30 °C with the thermal energy of 12000 J. If the mass of the liquid is 12 kg the specific heat capacity would be

A. 25 J kg^{-1} $°C^{-1}$

B. 50 J kg^{-1} $°C^{-1}$

C. 75 J kg^{-1} $°C^{-1}$

D. 100 J kg^{-1} $°C^{-1}$

MCQ 99: Brass has the specific heat capacity of

A. 300 J kg^{-1} $°C^{-1}$

B. 340 J kg^{-1} $°C^{-1}$

C. 380 J kg^{-1} $°C^{-1}$

D. 420 J kg^{-1} $°C^{-1}$

MCQ 100: The kinetic component in the matter is

A. directly proportional to mass

B. inversely proportional to mass

C. directly proportional to temperature

D. inversely proportional to temperature

MCQ 101: The amount of heat required to raise the temperature of 1 kg of a substance by 1 K or 1 °C is termed as

A. Heat capacity

B. Specific heat capacity

C. Latent heat capacity

D. Specific latent heat capacity

MCQ 102: During the process of evaporation, the temperature

A. increases

B. decreases

C. remains constant

D. may increase or decrease

MCQ 103: The unit for the latent heat of vaporization is

A. Kelvin

B. Pascals

C. Joules

D. Ohms

MCQ 104: The standard unit of heat capacity is

A. $J\ K^{-1}$

B. $C\ K^{-1}$

C. $J\ K^{-2}$

D. $J\ °F^{-1}$

MCQ 105: The standard symbol for specific heat capacity is

A. h

B. c

C. q

D. e

MCQ 106: The amount of energy required to raise the temperature of a substance by 1 K or 1 °C is termed as

A. Thermal transfer

B. Thermal ability

C. Heat energy

D. Heat capacity

MCQ 107: The formula of specific latent heat of vaporization is

A. $L_f = m/l_f$

B. $L_f = l_f/m$

C. $l_f = L_f \times m$

D. $l_f = L_f/m$

MCQ 108: In fluids, the kinetic energy is due to

A. the movement of particles

B. the vibration of particles

C. the collision of particles

D. the intermolecular forces

MCQ 109: A heater raises the temperature of air in a room from 22 °C to 37 °C with the energy of 7500 J. If the mass of the air is 5 kg, the specific heat capacity of the air would be

A. 25 J kg^{-1} $°C^{-1}$

B. 50 J kg^{-1} $°C^{-1}$

C. 75 J kg^{-1} $°C^{-1}$

D. 100 J kg^{-1} $°C^{-1}$

MCQ 110: Evaporation occurs at

A. high temperature

B. low temperature

C. any temperature

D. solid surface

MCQ 111: The amount of potential energy depends on the

A. force between the particles

B. temperature of the particles

C. force and distance between the particles

D. distance between the particles and their temperature

MCQ 112: During the process of boiling, what causes the liquid to turn into gas?

A. The weakness of intermolecular bonds

B. The decrease in the rate of kinetic energy

C. The decrease in the rate of vibration of particles

D. The increase in the collision of particles

MCQ 113: Gold has the melting point of

A. 1020 °C

B. 1033 °C

C. 1054 °C

D. 1067 °C

MCQ 114: During boiling process, the temperature

A. increases

B. decreases

C. remains constant

D. may increase or decrease

MCQ 115: The amount of thermal energy required to change 1 kg of the solid to liquid and vice versa without any change in temperature is called

A. Specific Latent Heat of Fusion

B. Specific Latent Heat of Vaporization

C. Heat Capacity

D. Specific Heat Capacity

MCQ 116: If the pressure is decreased the rate of evaporation would

A. increase

B. decrease

C. remain same

D. vary

MCQ 117: A cook heats up food from 20 °C to 120 °C with the thermal energy of 500000 J, the heat capacity of the food would be

A. −10000 J K^{-1}

B. −5000 J K^{-1}

C. 10000 J K^{-1}

D. 5000 J K^{-1}

MCQ 118: The specific heat capacity of copper is

A. 100 J kg^{-1} $°C^{-1}$

B. 200 J kg^{-1} $°C^{-1}$

C. 300 J kg^{-1} $°C^{-1}$

D. 400 J kg^{-1} $°C^{-1}$

MCQ 119: In an experiment, 100g of liquid requires 12600 J of thermal energy to raise its temperature from 20 °C to 22 °C, the specific heat capacity of the liquid would be

A. 63 J kg^{-1} $°C^{-1}$

B. 126 J kg^{-1} $°C^{-1}$

C. −63 J kg^{-1} $°C^{-1}$

D. −126 J kg^{-1} $°C^{-1}$

MCQ 120: The amount of thermal energy required to change a solid to liquid state and vice versa without any change if temperature is termed as

A. Latent Heat of Fusion

B. Latent Heat of Vaporization

C. Heat Capacity

D. Specific Heat Capacity

MCQ 121: The SI unit for heat is

A. Joules

B. Pascals

C. Ohms

D. Amperes

MCQ 122: In a science lab, a student uses 150g of water and heats it from 10 °C to 30 °C with the energy of 10000 J, the heat capacity of the water is

A. 250 J K^{-1}

B. −250 J K^{-1}

C. 500 J K^{-1}

D. −500 J K^{-1}

MCQ 123: The process in which gas is turned into liquid is known as

A. melting

B. boiling

C. freezing

D. condensation

MCQ 124: Boiling occurs at

A. fixed temperature

B. unfixed temperature

C. any temperature

D. liquid's bottom

MCQ 125: Water has the specific heat capacity of

A. 3900 J kg^{-1} $°C^{-1}$

B. 4000 J kg^{-1} $°C^{-1}$

C. 4100 J kg^{-1} $°C^{-1}$

D. 4200 J kg^{-1} $°C^{-1}$

MCQ 126: When a solid changes its state to liquid upon heating, this change of state is termed as

A. Melting

B. Solidification

C. Boiling

D. Condensation

MCQ 127: A heater changes the temperature of room from 20 °C to 40 °C with the energy usage of 20000 J, the heat capacity of the air in the room would be

A. 500 J K^{-1}

B. 1000 J K^{-1}

C. 1200 J K^{-1}

D. 1500 J K^{-1}

MCQ 128: A student heats up sulphuric acid from 5 °C to 55 °C with the thermal energy of 20000 J. If the mass of the 4 kg the specific heat capacity of the sulfuric acid is

A. 25 J kg^{-1} $°C^{-1}$

B. 50 J kg^{-1} $°C^{-1}$

C. 75 J kg^{-1} $°C^{-1}$

D. 100 J kg^{-1} $°C^{-1}$

MCQ 129: If we put some water in a pot and put it over the bunsen burner, the thermal energy supplied to the water would lead to a gain in

A. external energy

B. internal energy

C. chemical energy

D. physical energy

MCQ 130: If the boiling point of an object is high, then the rate of evaporation would be

A. slower

B. faster

C. normal

D. zero

MCQ 131: During the process of boiling, thermal energy is

A. taken in

B. given out

C. neither given out nor taken in

D. thermal energy isn't needed

MCQ 132: In the kitchen, the cook heats up the milk from 20 °C to 30 °C with the thermal energy of 2000 J. The heat capacity of the milk is

A. 100 J K^{-1}

B. 200 J K^{-1}

C. −100 J K^{-1}

D. −200 J K^{-1}

MCQ 133: C is the symbol for

A. Heat capacity

B. Specific Heat Capacity

C. Latent Heat

D. Specific Latent Heat

MCQ 134: The melting point of wax is

A. 37 °C

B. 47 °C

C. 57 °C

D. 67 °C

MCQ 135: The formula of specific heat capacity is

A. $c = C/\Delta\theta$

B. $c = Q/\Delta\theta$

C. $c = C/m$

D. $c = C \times m$

MCQ 136: The unit of specific latent heat of vaporization is

A. Kelvin per kilogram

B. Pascals per kilogram

C. Joules per Kilogram

D. Ohms per kilogram

MCQ 137: When a pure substance changes its state from liquid to gas upon heating, the process is termed as

A. boiling

B. solidification

C. condensation

D. sublimation

MCQ 138: If we decrease the humidity in the air, the rate of evaporation would

A. increase

B. decrease

C. remain same

D. may increase or decrease

MCQ 139: The change in the state of matter from gas to liquid is termed as

A. boiling

B. solidification

C. condensation

D. sublimation

MCQ 140: If the heat capacity of a solid is 1500 JK^{-1} and mass is 75 kg. The specific heat capacity of the solid would be

A. 10 J kg^{-1} $°C^{-1}$

B. 20 J kg^{-1} $°C^{-1}$

C. 30 J kg^{-1} $°C^{-1}$

D. 40 J kg^{-1} $°C^{-1}$

Answers:

1. **B**
2. **D**
3. **B**
4. **C**
5. **C**
6. **B**
7. **C**
8. **A**
9. **B**
10. **C**
11. **D**
12. **B**
13. **D**
14. **C**
15. **C**
16. **D**
17. **B**
18. **D**
19. **A**
20. **A**
21. **B**
22. **B**

23. **B**
24. **B**
25. **D**
26. **B**
27. **A**
28. **A**
29. **D**
30. **B**
31. **B**
32. **B**
33. **B**
34. **C**
35. **B**
36. **D**
37. **B**
38. **B**
39. **B**
40. **A**
41. **B**
42. **B**
43. **C**
44. **B**
45. **B**
46. **C**
47. **B**
48. **C**
49. **C**
50. **A**
51. **B**
52. **B**
53. **C**
54. **C**
55. **C**
56. **A**
57. **C**
58. **C**

59. **B**
60. **B**
61. **D**
62. **A**
63. **B**
64. **C**
65. **C**
66. **B**
67. **A**
68. **A**
69. **B**
70. **A**
71. **A**
72. **D**
73. **C**
74. **B**
75. **D**
76. **B**
77. **B**
78. **A**
79. **A**
80. **B**
81. **C**
82. **A**
83. **C**
84. **D**
85. **B**
86. **A**
87. **A**
88. **B**
89. **B**
90. **A**
91. **C**
92. **A**
93. **A**
94. **B**

95. **C**
96. **D**
97. **A**
98. **D**
99. **C**
100. **C**
101. **B**
102. **D**
103. **C**
104. **A**
105. **B**
106. **D**
107. **D**
108. **A**
109. **D**
110. **C**
111. **C**
112. **A**
113. **D**
114. **C**
115. **A**
116. **A**
117. **D**
118. **D**
119. **A**
120. **A**
121. **A**
122. **C**
123. **D**
124. **A**
125. **D**
126. **A**
127. **B**
128. **D**
129. **B**
130. **A**

131. **A**
132. **B**
133. **A**
134. **C**
135. **C**
136. **C**
137. **A**
138. **A**
139. **C**
140. **B**