MASTER TUTORIALS

Topic Name: Matter In Our Surrounding (Objective Questions)

1. The quantity of matter present in an object is called its –
(a) Weight (b) Volume
(c) Mass (d) Density

2. Which of the following statements is/are correct ?
(a) Intermolecular forces of attraction in solids are maximum.
(b) Intermolecular forces of attraction in gases are minimum.
(c) Intermolecular spaces in solids are minimum.
(d) All of the above

3. Which of the following is not an example of matter ?
(a) Air
(b) Feeling of cold
(c) Dust
(d) None of these

4. Which of the following is/are application(s) of high compressibility of gases ?
(a) L.P.G. is used as fuel in homes for cooking food.
(b) Oxygen cylinders are supplied to hospitals.
(c) C.N.G. is used as fuel in vehicles.
(d) All of these

5. Which of the following is/are rigid(s) ?
(a) Solids
(b) Liquids
(c) Gases
(d) Both (b) and (c)

6. Which of the following statements is correct ?
(a) Interparticle spaces are maximum in the gaseous state of a substance.
(b) Particles which constitute the matter follow a zig-zag path.
(c) Solid state is the most compact state of substance.
(d) All are correct

7. What happens to the volume of the solution when small amount of sugar is dissolved in it ?
(a) Volume will increase
(b) Volume will decrease.
(c) Volume first increases then decreases
(d) No change in volume.

8. Which of the following is not correct for gases ?
(a) Gases have definite mass
(b) Gases have definite shape.
(c) Gases have definite volume
(d) Both (b) and (c)

9. Which out of the following does not make sense.
(a) Solids have fixed shape and fixed volume.
(b) Liquids can be compressed easily, but not gases.
(c) The particles of solids have negligible kinetic energy.
(d) Property of diffusion is maximum in the gaseous state.

10. Which of the following statements does not go with the liquid state ?
(a) Particles are loosely packed in the liquid state.
(b) Fluidity is the maximum in the liquid state.
(c) Liquids can be compressed.
(d) Liquids take up the shape of any container in which these are placed.

11. On changing which of the following, the states of matter can be changed ?
(a) Temperature
(b) Pressure
(c) (a) & (b) both
(d) None of these

12. In sublimation process -
(a) Solid changes into liquid
(b) Liquid changes into gas.
(c) Solid changes directly into gas
(d) None of these

13. Solids cannot be compressed because -
(a) Constituent particles are very closely packed.
(b) Interparticle attractive forces are weak
(c) Movement of constituent particles is restricted.
(d) Constituent particles diffuse very slowly.

14. The boiling point of alcohol is 78^0C. What will be the temperature in Kelvin scale ?
(a) 373 K
(b) 351 K
(c) 375 K
(d) 78 K

15. S.I. unit of temperature is -
(a) Kelvin
(b)Celsius
(c) Both
(d) None

16. 10^0C temperature is equal to -
(a) 163 K
(b) 10 K
(c) 183 K
(d) 283 K

17. Melting & freezing point of water -
(a) Are same
(b) Have large difference between them.
(c) Have close difference between them
(d) None of these

18. Latent heat of vaporisation of water is -
(a) 2.25×10^2 J/kg
(b) 22.5×10^5 J/kg
(c) 3.34×10^5 J/kg
(d) 33.4×10^2 J/kg

19. When a liquid starts boiling, the further heat energy which is supplied -
(a) Is lost to the surrounding as such.
(b) Increasing the temperature of the liquid.
(c) Increases the kinetic energy of the liquid.
(d) Is absorbed as latent heat of vaporisation by the liquid.

20. Which of the following will respond to sublimation ?
(a) Common salt
(b) Sugar
(c) Camphor
(d) Potassium nitrate

21. Dry ice means -
(a) Solid ammonia
(b) Solid carbon dioxide
(c) Solid sulphur dioxide
(d) Normal ice

22. Rate of evaporation depends upon -
(a) Temperature
(b) Surface area
(c) Humidity
(d) All of these

23. As temperature increases rate of evaporation -
(a) Increases
(b) Decreases.
(c) First increases, then decreases
(d) Remains same.

24. On a hot humid day rate of evaporation -
(a) Is more
(b) Is less
(c) Initially more, later on less
(d) Remains same.

25. During evaporation, particles of a liquid change into vapours only -
(a) From the surface.
(b) From the bulk.
(c) From both surface and bulk.
(d) Neither from surface nor from bulk.

26. During evaporation of liquid -
(a) The temperature of the liquid falls.
(b) The temperature of the liquid rises.
(c) The temperature of the liquid remains unchanged.
(d) All statements are wrong.

27. In which phenomenon water changes into water vapour below its boiling point ?
(a) Evaporation
(b) Condensation
(c) Boiling
(d) No such phenomena exists

28. Pressure of air at sea level is -
(a) One atmosphere
(b) 76 cm of Hg
(c) 760 mm of Hg
(d) All of these

29. One atmosphere is equal to -
(a) 1.01×10^5 Pa
(b) 3.46×10^4 Pa
(c) 1 Pa
(d) 10 Pa

30. A gas can be best liquefied -
(a) By increasing the temperature.
(b) By lowering the pressure.
(c) By increasing the pressure and reducing the temperature.
(d) None of these is correct.

31. Which of the following is matter?
(a) Love
(b) Thought
(c) Cold
(d) Cold drink

32. The change of state from gas to liquid is called
(a) Fusion
(b) Condensation
(c) Sublimation
(d) Vaporization

33. Dry ice is –
(a) Water in solid state
(b) Water in gaseous state
(c) CO_2 in liquid state
(d) CO_2 in solid state

34. Which of the following is not a matter ?
(a) Chair
(b) Air
(c) Smell
(d) Cold drink

35. The large volumes of gases can be put into small volumes of cylinders because of their property known as
(a) Sublimation
(b) Compressibility
(c) Evaporation
(d) Solidification

36. The change of state from solid to gas is called
(a) Fusion
(b) Condensation
(c) Sublimation
(d) Vaporization

37. The temperature at which a liquid changes into gas is known as
(a) Melting point
(b) Transition point
(c) Boiling point
(d) Kelvin point

38. The temperature at which a solid changes into liquid is known as
(a) Melting point
(b) Transition point
(c) Boiling point
(d) Kelvin point

39. The change of state from liquid to vapour is called
(a) Fusion
(b) Condensation
(c) Sublimation
(d) Vaporization

40. Which of the following has the strongest interparticle forces at room temperature?
(a) Oxygen
(b) Water

(c) Bromine
(d) Iron

41. 400 K temperature may be written in celsius scale as
(a) 300^0C
(b) 127^0C
(c) 27^0C
(d) 573^0C

42. The physical state of water at 10^0C is
(a) Solid
(b) Liquid
(c) Gas
(d) May be solid or liquid

43. The substance which can readily sublime is
(a) Ammonium chloride
(b) Sodium chloride
(c) Hydrochloric acid
(d) Chlorine gas

44. Which of the following factor does not increase the rate of evaporation?
(a) Increase of temperature
(b) Increase in wind speed
(c) Increase in surface area
(d) Increase in humidity

45. Which of the following has highest intermolecular forces of attraction?
(a) Liquid water
(b) Liquid ethyl alcohol
(c) Gaseous CO_2
(d) Solid CO_2

46. Arrange the following substances in the increasing order of intermolecular forces of attraction
(i) Salt (ii) Water (iii) Carbondioxide
(a) (iii) < (ii) < (i)
(b) (iii) > (ii) > (i)
(c) (ii) < (i) > (iii)
(d) (i) < (ii) > (iii)

47. Which of the following are not a matter?
(a) Smell
(b) Thought
(c) Love
(d) Pen

48. Which of the following statements are correct?
(a) Solids have a fixed shape and a fixed volume
(b) Solids do not flow
(c) Solids have high densities
(d) None of these

49. Which of the following statements are correct?
(a) Liquids generally flow easily
(b) Liquids have a fixed volume
(c) Liquids have no fixed shape
(d) None of these

50. Which of the following are correct regarding gases?
(a) Gases have weak tendency to diffuse
(b) Gases have weak intermolecular forces of attraction
(c) Gases have high compressibility
(d) None of these

51. Which of the following factor does not increase the rate of evaporation ?
(a) Increase of humidity
(b) Decrease of surface area
(c) Decrease of temperature
(d) None of these

52. Which of the following statements are incorrect?
(a) Solid have no fixed shape
(b) Solids have no fixed volume
(c) Liquids have fixed shape
(d) None of these

53. Which of the following factors are responsible for the change in state of solids carbon dioxide when kept exposed to air?
(a) Increase in pressure
(b) Decrease in pressure
(c) Increase in Temperature
(d) Decrease in Temperature

54. The characteristic features of solids are –
(a) Definite shape
(b) Definite size
(c) Definite shape and size
(d) Definite shape, size and rigidity

55. Which is not a property of solids –
(a) Solids are always crystalline in nature
(b)Solids have high density and low compressibility
(c) The diffusion of solids is very slow
(d) Solids have definite volume

56. Which of the following statement is correct ?
(a) Liquids have fixed shape
(b) Gases have a fixed volume and a fixed shape
(c) Liquids can be compressed easily
(d) Gases can be compressed easily

57. Diffusion mainly occurs in –
(a) Solid
(b) Liquid
(c) Gas
(d) All of these

58. ^{0}C temperature may be written in kelvin scale as–
(a) 300 K
(b) 273 K
(c) 27 K
(d) All of the above

59. The physical state of water at ^{0}C is –
(a) Ice
(b) Vapour
(c) Dry ice
(d) None of these

60. Which of the following is correct regarding evaporation –
(a) It causes cooling
(b) It is a surface phenomenon
(c) The rate of evaporation increases with increases in temperature
(d) All of these

61. The spontaneous intermixing of particles of two different types of matter is called –
(a) Diffusion
(b) Fusion
(c) Condensation

(d) All of these

62. Which of the following factor are increase the rate of evaporation ?
(a) Increase of surface area
(b) Increase of temperature
(c) Increase of wind speed
(d) All of these

63. Which one of the following statements is not correct about the three states of matter?
(a) Molecules of a solids posses least energy whereas those of a gas possess highest energy
(b) The density of solid is highest whereas that of gases is lowest
(c) Gases like liquids possess definite volumes
(d) Molecules of a solids possess vibratory motion

64. Kinetic energy of molecules is highest in –
(a) Gases
(b) Solids
(c) Liquids
(d) Solutions

65. 500 K temperature may be written in celsius scale as –
(a) 227^0C
(b) 500^0C
(c) Both (a) and (b)
(d) None of these

66. What is the physical state of water at 100^0C
(a) Water (liquid)
(b) Ice (solid)
(c) Vapour (gaseous)
(d) None of these

67. Which of the following statement is incorrect ?
(a) Solids do not flow
(b) Solids have low densities
(c) Solids cannot be compressed
(d) Solids have fixed shape

68. Which of the following are matter?
(a) Love
(b) Thought
(c) Chair
(d) Book

69. Which of the following statements are correct?
(a) Matter is made up of small particles
(b) Matter have mass
(c) Matter have not mass
(d) None of these

70. Which of the following statements are correct?
(a) Liquids flow and they are not rigid
(b) Liquids generally have lower density than solids
(c) Liquids are rigid
(d) None of these

71. Which of the following conditions are most favourable for converting a gas into liquid ?
(a) High pressure
(b) Low temperature
(c) Low pressure
(d) None of these

72. The substances which can sublime are ?
(a) Camphor
(b) Naphthalene
(c) Anthracene
(d) Iodine

73. Which of the following statements are correct?
(a) Condensation is opposite to evaporation
(b) Solidification is opposite to melting
(c) Solidification is opposite to freezing
(d) None of these

74. Which of the following processes require heating?
(a) Fusion
(b) Condensation
(c) Vaporisation
(d) Solidification

75. Which of the following factors are increase the rate of evaporation ?
(a) Increase of surface area
(b) Increase of temperature
(c) Increase of wind speed
(d) Increase of humidity

76. 373 K temperature may be written in celsius scale as
(a) 100^0C
(b) 373^0C
(c) 646^0C
(d) None of these

77. 127^0C temperature may be written in kelvin scale as
(a) 127 K
(b) 400 K
(c) – 46 K
(d) None of these

78. 527^0C temperature may be written in kelvin scale as
(a) 800 K
(b) 527 K
(c) 254 K
(d) None of these

79. What is volume of gases?
(a) Definite
(b) Almost Nil
(c) Large
(d) Take the volume of container

80. The change of state from solid to liquid known as-
(a) Fusion
(b) Boiling
(c) Melting
(d) None of these

81. Dry ice is -
(a) Water in solid state
(b) Water in gaseous state
(c) CO_2 in liquid state
(d) CO_2 in solid state

82. Which factor affecting Evaporation -
(a) Temperature
(b) Surface area
(c) Both (a) & (b)
(d) None of these

83. Condensation Process is -
(a) Change of state from gas to liquid
(b) Change of state from liquid to gas
(c) Change of state from gas to solid

(d) Change of state from solid to liquid

84. Name the process by which a drop of ink spreads in a beaker of water -
(a) Diffusion
(b) Vaporization
(c) Condensation
(d) Sublimation

85. The process for the change of a solid directly into its vapour is called -
(a) Evaporation
(b) Ebullition
(c) Condensation
(d) Sublimation

86. The boiling point of water on kelvin scale is -
(a) 573 K
(b) 273 K
(c) 373 K
(d) 100 K

87. The process of change of a liquid into vapour at any temperature is called –
(a) Diffusion
(b) Evaporation
(c) Cooling
(d) Heating

88. The temperature at which liquid starts boiling at atmospheric pressure known as-
(a) Melting point
(b) Boiling point
(c) Latent heat
(d) Condensation

89. The melting point of ice is -
(a) 0^0C
(b) 4^0C
(c) 5^0C
(d) None of these

90. The physical state of matter which can be easily compressed -
(a) Liquid
(b) Gas
(c) Solid
(d) N_2

91. The temperature at which a solid changes into liquid at atmospheric pressure is called-
(a) Melting point
(b) Boiling point
(c) Diffusion
(d) Evaporation

92. Plasma is the …… state of matter -
(a) First
(b) Second
(c) Third
(d) Fourth