



MASTER TUTORIALS

Topic Name: Is Matter Around Us Pure (Objective Paper)

Date : _____ Total Marks: _____ No Of Questions: _____

1. Which of the following can be classified as a pure substance ?
(a) Milk
(b) Sea - water
(c) Ice
(d) Cast iron
2. Which of the following is a compound ?
(a) Air
(b) Milk
(c) Iodine
(d) Water
3. Which of the following is not a compound ?
(a) Marble
(b) Marble
(c) Quick lime
(d) Brass
4. The elements which give out harmful radiation are called -
(a) Normal elements
(b) Representative elements
(c) Radioactive elements
(d) None of these
5. Air is regarded as a -
(a) Compound
(b) Mixture
(c) Element
(d) Electrolyte
6. Which of the following provides an example of a true solution ?
(a) Blood
(b) Milk
(c) Starch solution
(d) Sugar solution
7. The particle size of solute in true solution is of the order of -
(a) 10^{-6} m
(b) 10^{-7} m
(c) 10^{-8} m
(d) 10^{-9} m
8. Which of the following statement is not true about true solution?
(a) It can pass through filter paper.
(b) It is homogeneous in nature.
(c) At constant temperature, particles of solute settle down.
(d) From a true solution, the solute can easily be recovered by evaporation or crystallization
9. The concentration of solution is the mass of the solute in grams, which is present in -
(a) 10 gm of solvent
(b) 10 gm of solution
(c) 100 gm of solvent
(d) 100 gm of solution
10. A solution, which at a given temperature dissolves as much solute as it is capable of dissolving, is said to be a -
(a) Saturated solution
(b) Semi saturated solution
(c) Unsaturated solution
(d) Super saturated solution
11. Which of the following is/are example of suspension ?
(a) Muddy water
(b) Slaked lime
(c) Paints
(d) All
12. Fog is an example of -
(a) Foam
(b) Emulsion
(c) Aerosol
(d) Gel
13. Which of the following is an example of emulsion ?
(a) Face cream
(b) Shaving cream
(c) Honey
(d) Smoke
14. Soap solution is an example of -
(a) True solution
(b) Suspension
(c) Colloidal solution
(d) None of these
15. Which of the following is an example of gel ?
(a) Coloured gem
(b) Jelly
(c) Smoke
(d) Shaving cream
16. Which of the following will show Tyndall effect ?
(a) Starch solution
(b) Sodium chloride solution
(c) Copper sulphate solution
(d) Sugar solution
17. Which of the following statement is not true about suspension ?
(a) The particles of suspension can be separated from solvent by the process of filtration.
(b) When the suspension is kept undisturbed the particles of suspension settle down.
(c) A suspension is homogeneous in nature.
(d) Scattering of light take place in suspension.
18. Which of the following statement is not true about colloidal solution ?
(a) These are visible under powerful microscope.
(b) Their particles do not settle down with passage of time
(c) Their particles are electrically charged.

- (d) These are homogeneous in nature.
19. When a beam of light is passed through a colloidal solution, it gets -
 (a) Reflected
 (b) Absorbed
 (c) Scattered
 (d) Refracted
20. Colloidal particles can be normally seen by
 (a) Naked eye
 (b) Optical microscope
 (c) Electron microscope
 (d) Telescope
21. Which of the following is a physical change ?
 (a) Evaporation of alcohol
 (b) Melting of ice
 (c) Rusting of iron
 (d) Both (a) & (b)
22. To separate the various coloured pigments present in a substance which method is used ?
 (a) Sublimation
 (b) Chromatography
 (c) Centrifugation
 (d) Evaporation
23. Which of the following is not a chemical change ?
 (a) Rusting of iron
 (b) Cooking of food
 (c) Freezing of water
 (d) Digestion of food
24. Mixture of sand and camphor can be purified by -
 (a) Distillation
 (b) Filtration
 (c) Sedimentation
 (d) Sublimation
25. A mixture of ammonium chloride and sodium chloride can be separated by
 (a) Chromatography
 (b) Hand picking
 (c) By sublimation
 (d) Centrifugation
26. Which of the following method is used for separation of different components of petroleum ?
 (a) Fractional distillation
 (b) Sublimation
 (c) Chromatography
 (d) Simple distillation
27. Which of the following substances when mixed with sand cannot be separated by sublimation ?
 (a) NaCl
 (b) NH_4Cl
 (c) Camphor
 (d) Iodine
28. What will be the sublimate, when a mixture of sand, sulphur, common salt and iodine is sublimed ?
 (a) Sand
 (b) Iodine
 (c) Sulphur
 (d) Common salt
29. A mixture of alcohol and water can be separated by
 (a) Separating funnel
 (b) Fractional distillation
 (c) Simple distillation
 (d) Sublimation
30. Carbon burns in oxygen to form carbon dioxide. The properties of carbon dioxide are -
 (a) Similar to carbon
 (b) Similar to oxygen
 (c) Totally different from both carbon and oxygen
 (d) Much similar to both carbon and oxygen
31. Which of the following is a compound?
 (a) Iodine
 (b) Sand
 (c) Milk
 (d) Water
32. Which of the following can be classified as a 'substance' ?
 (a) Milk
 (b) Sea-water
 (c) Ice
 (d) Cast iron
33. Which of the following gives a colloidal solution in water?
 (a) Common salt
 (b) Alum
 (c) Sand
 (d) Starch
34. Which of the following is not a mixture ?
 (a) Soil
 (b) Air
 (c) Steam
 (d) Milk
35. Which of the following is not a physical change?
 (a) Freezing of water
 (b) Mixing of iron filings and sulphur
 (c) Cooking of food
 (d) Evaporation of alcohol
36. Which of the following is a compound?
 (a) Sodium
 (b) Soil
 (c) Methane
 (d) Silicon
37. Which of the following are elements ?
 (a) Air
 (b) Soap
 (c) Tin
 (d) Sugar solution
38. Which of the following gives a true solution in water ?
 (a) Starch
 (b) Sugar
 (c) Chalk powder
 (d) Egg albumin
39. Which of the following is not a compound ?
 (a) Common salt
 (b) Water
 (c) Iron filings
 (d) Copper sulphate
40. Which of the following is not a chemical change?
 (a) Electrolysis of water
 (b) Boiling of water

<p>(c) Digestion of food</p> <p>(d) Burning of magnesium ribbon in oxygen to form magnesium oxide</p> <p>41. Which of the following is a liquid metal ?</p> <p>(a) Copper</p> <p>(b) Mercury</p> <p>(c) Bromine</p> <p>(d) Silver</p> <p>42. Which of the following is not a pure substance?</p> <p>(a) Mercury</p> <p>(b) Sugar</p> <p>(c) Blood</p> <p>(d) Salt</p> <p>43. Which of the following is a mixture ?</p> <p>(a) Calcium oxide</p> <p>(b) Carbon dioxide</p> <p>(c) Soil</p> <p>(d) Coal</p> <p>44. Which of the following pairs does not contain both elements ?</p> <p>(a) Carbon, silicon</p> <p>(b) Helium, nitrogen</p> <p>(c) Bronze, zinc</p> <p>(d) Copper, silver.</p> <p>45. Odd one among the following which does not belong to the set is –</p> <p>(a) Graphite</p> <p>(b) Gold</p> <p>(c) Germanium</p> <p>(d) Ice</p> <p>46. Brass contains</p> <p>(a) Gold and copper</p> <p>(b) Copper and zinc</p> <p>(c) Zinc and silver</p> <p>(d) Copper and silver</p> <p>47. Gases can be obtained from air by the process of</p> <p>(a) Fractional distillation</p> <p>(b) Condensation</p> <p>(c) Crystallisation</p> <p>(d) Evaporation</p> <p>48. Which method cannot be used for separating solution of solid in liquid ?</p> <p>(a) Distillation</p> <p>(b) Separating funnel</p> <p>(c) Crystallisation</p> <p>(d) Evaporation</p> <p>49. Odd one among the following which does not belong to the set is ?</p> <p>(a) Gun powder</p> <p>(b) Air</p> <p>(c) Graphite</p> <p>(d) Brass</p> <p>50. Which of the following is a liquid non-metal ?</p> <p>(a) Copper</p> <p>(b) Mercury</p> <p>(c) Bromine</p> <p>(d) Silver</p> <p>51. Which of the following statements is/are true?</p> <p>(a) True solutions are homogeneous in nature</p>	<p>(b) Suspensions are heterogeneous in nature</p> <p>(c) Solute particles in a colloidal solution can be separated by filtration</p> <p>(d) True solutions are transparent to light</p> <p>52. Which of the following are chemical changes ?</p> <p>(a) Electrolysis of water</p> <p>(b) Boiling of egg</p> <p>(c) Rusting of iron</p> <p>(d) None of these</p> <p>53. Which of the following are physical changes ?</p> <p>(a) Evaporation of alcohol</p> <p>(b) Melting of ice</p> <p>(c) Breaking of glass</p> <p>(d) None of these</p> <p>54. Which of the following are metalloids ?</p> <p>(a) Arsenic</p> <p>(b) Bismuth</p> <p>(c) Antimony</p> <p>(d) Bromine</p> <p>55. Which of the following statements is/are correct?</p> <p>(a) A compound is a pure substance</p> <p>(b) A compound is homogeneous in nature</p> <p>(c) A compound always contains two or more elements</p> <p>(d) A compound can be separated into constituent elements by some physical process</p> <p>56. Which of the following observations is/are correct?</p> <p>(a) When a magnet is brought near a mixture containing iron filings and sulphur, the iron filings are attracted towards the magnet</p> <p>(b) A mixture of iron filings and sulphur is homogeneous in nature.</p> <p>(c) When a carbon disulphide is added to a mixture of iron filings and sulphur, sulphur dissolves in carbon disulphide leaving behind iron filings</p> <p>(d) When a mixture of iron filings and sulphur is heated, a chemical change takes place resulting in the formation of ferrous sulphide.</p> <p>57. Which of the following statements is/are true about ferrous sulphide ?</p> <p>(a) It is homogeneous in nature</p> <p>(b) It is not attracted towards magnet</p> <p>(c) It is soluble in carbon disulphide</p> <p>(d) It is stable to heat</p> <p>58. Sky looks blue due to</p> <p>(a) Dispersion effect</p> <p>(b) Reflection</p> <p>(c) Transmission</p> <p>(d) Scattering</p> <p>59. Which one is an example of gel ?</p> <p>(a) Soap</p> <p>(b) Cheese</p> <p>(c) Milk</p> <p>(d) Fog</p> <p>60. Smoke is an example of</p> <p>(a) Gas dispersed in liquid</p> <p>(b) Gas dispersed in solid</p> <p>(c) Solid dispersed in gas</p>
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- (d) Solid dispersed in solid
61. Light scattering in colloidal particles is –
 (a) Visible to naked eye
 (b) Not visible by any means
 (c) Visible under ordinary microscope
 (d) Visible under ultra-microscope
62. Which one of the following is not a colloidal solution?
 (a) Smoke
 (b) Ink
 (c) Air
 (d) Blood
63. Which of the following terms is not related with colloids?
 (a) Dialysis
 (b) Ultrafiltration
 (c) Wavelength
 (d) Brownian movement
64. In which of the following Tyndall effect is not observed
 (a) Suspensions
 (b) Emulsions
 (c) Sugar solution
 (d) Gold sol
65. Tyndall effect is shown by
 (a) Sol
 (b) Solution
 (c) Plasma
 (d) Precipitation
66. The random or zig-zag motion of the colloidal particles in the dispersion medium is referred to as –
 (a) Electro-osmosis
 (b) Electrophoresis
 (c) Brownian movement
 (d) Tyndall effect
67. If the dispersed phase is a liquid and the dispersion medium is a solid, the colloid is known as –
 (a) A sol
 (b) An emulsion
 (c) A gel
 (d) A foam
68. A colloidal solution can be purified by –
 (a) Filtration
 (b) Peptization
 (c) Coagulation
 (d) Dialysis
69. Milk is a colloid in which –
 (a) A liquid is dispersed in liquid
 (b) A solid is dispersed in liquid
 (c) A gas is dispersed in liquid
 (d) Some sugar is dispersed in water
70. Which one of the following mixtures can be separated into pure components by fractional distillation?
 (a) Benzene-toluene
 (b) Water-ethyl alcohol
 (c) Water-nitric acid
 (d) Water-hydrochloric acid
71. Which of the following statements is correct for the boiling point of solvent containing a dissolved solid substance ?
 (a) Boiling point of the liquid is depressed
 (b) Boiling point of the liquid is elevated
 (c) There is no effect on the boiling point
 (d) The change depends upon the polarity of liquid
72. When a substance is dissolved in a solvent, the vapour pressure of solvent decreases. It brings?
 (a) A decrease in boiling point of solution
 (b) An increase in boiling point of the solution
 (c) A decrease in freezing point of the solution
 (d) An increase in freezing point of the solution
73. When common salt is dissolved in water –
 (a) Melting point of the solution increases
 (b) Boiling point of the solution increases
 (c) Boiling point of the solution decreases
 (d) Both melting point and boiling point decreases
74. During the evaporation of liquid –
 (a) The temperature of the liquid will rise
 (b) The temperature of the liquid will fall
 (c) May rise or fall depending on the nature
 (d) The temperature remains unaffected.
75. In emulsions, the dispersion medium and dispersed phase are –
 (a) Both solids
 (b) Both gases
 (c) Both liquids
 (d) One is solid and other is liquid
76. When dispersed phase is liquid and dispersion medium is gas, then the colloidal system is called?
 (a) Smoke
 (b) Clouds
 (c) Emulsion
 (d) Jellies
77. Which characteristic is true in respect of colloidal particle ?
 (a) They always have two phases
 (b) They are only in liquid state
 (c) They can't be electrolysed
 (d) They are only hydrophilic
78. The size of particles in suspension, true solution and colloidal solution varies in the order
 (a) Suspension > Colloidal > True solution
 (b) Suspension > (Colloidal + True solution)
 (c) True solution > Suspension > Colloidal
 (d) None of these
79. Which of the following statements are correct?
 (a) Metals are good conductors
 (b) Metals are ductile
 (c) Metals are malleable
 (d) None of these
80. Which of the following statements are correct?
 (a) Non metals are soft and brittle
 (b) Non-metals have low densities
 (c) Non-metals are not sonorous
 (d) None of these
81. Which of the following pairs does not contain both mixture
 (a) Sodium, silicon
 (b) Methane, carbon dioxide
 (c) Soil, soap
 (d) None of these
82. Which of the following are pure substances?
 (a) Mercury

- (b) Sugar
(c) Blood
(d) Salt
83. Which of the following statements are correct?
(a) A solution is homogeneous in nature
(b) The size of the particles of solution is less than 10^{-9} m
(c) The particles of the solution easily pass through a filter paper
(d) None of these
84. Which of the following statements are correct?
(a) Suspension is a heterogeneous mixture
(b) The particles of suspension settle down when left undisturbed
(c) The suspension can be separated from the mixture by the process of filtration
(d) None of these
85. Which of the following is/are liquid elements?
(a) Hydrogen
(b) Mercury
(c) Bromine
(d) Silver
86. Which of the following statements are incorrect?
(a) Non-metals are good conductors
(b) Non-metals are sonorous
(c) Non-metals are poor conductors
(d) Non-metals are not sonorous
87. Which of the following is not a compound
(a) Common salt
(b) Water
(c) Iron fillings
(d) Copper sulphate
88. Which of the following is not a mixture
(a) Soil
(b) Air
(c) Steam
(d) Milk
89. Which of the following is not a chemical change
(a) Electrolysis of water
(b) Boiling of water
(c) Digestion of food
(d) Burning of magnesium ribbon in oxygen to form magnesium oxide.
90. Which of the following is a liquid metal.
(a) Copper
(b) Mercury
(c) Bromine
(d) Silver
91. Which of the following is not a pure substance -
(a) Mercury
(b) Sugar
(c) Blood
(d) Salt
92. Which of the following will show Tyndall effect
(a) Starch solution
(b) Sodium chloride solution
(c) Copper sulphate solution
(d) Sugar solution
93. Colloidal particles can be normally seen by
(a) Ordinary microscope
(b) Naked eye
(c) Electron microscope
(d) Telescope
94. Which of the following is the second most abundant metal in the earth's crust?
(a) Copper
(b) Aluminum
(c) Iron
(d) Zinc
95. When a beam of light is passed through a true solution it gets
(a) Reflected
(b) Absorbed
(c) Scattered
(d) Zinc
96. A mixture of common salt and water can be separated by
(a) Sublimation
(b) Evaporation
(c) Separating funnel
(d) Filtration
97. A solution in which more quantity of solute can be dissolved without raising its temperature is called
(a) Unsaturated solution
(b) Saturated solution
(c) Super saturated solution
(d) Concentrate solution
98. A mixture of alcohol and water can be separated by
(a) Separating funnel
(b) Fractional distillation
(c) Distillation
(d) Crystallisation
99. Brass contains
(a) Gold and copper
(b) Air
(c) Steam
(d) Milk
100. Which of the following can be classified as a Substance?
(a) Milk
(b) Sea - Water
(c) Ice
(d) Cast iron
101. Which of the following gives a true solution in water
(a) Starch
(b) Sugar
(c) Chalk powder
(d) Egg albumin
102. Which of the following statements is not correct -
(a) A compound is a pure substance
(b) Compound is homogeneous in nature.
(c) Compound always contains two or more elements
(d) Compound can be separated into constituent elements by some physical process.
103. Which of the following statements is not true.
(a) True solutions are homogeneous in nature
(b) Suspensions are heterogeneous in nature.
(c) Solute particles in a colloidal solution can be separated by filtration

(d) True solutions are transparent to light

104. Camphor can be purified by :

- (a) Distillation
- (b) Filtration
- (c) Scattered
- (d) Path of light does not visible

105. Carbon burn in oxygen to form carbon dioxide. The properties of carbon dioxide are-

- (a) Similar to oxygen
- (b) Similar or carbon
- (c) Totally different form both carbon and oxygen
- (d) Much similar to both carbon and oxygen

106. The process of cooling a hot, concentrated solution of a substance to obtain crystal is called

- (a) Fractional distillation
- (b) Distillation
- (c) Crystallisation
- (d) Chromatography