

## Matter in Our Surroundings

### Practice Exercise

1. Which of the following elements is liquid at room temperature?  
(a) Argon (b) Copper  
(c) Mercury (d) Calcium  
(e) None of these
2. Which one of the following is not a matter?  
(a) Air (b) Water  
(c) Paper (d) Smile  
(e) None of these
3. Which one of the following statements is not correct about solid?  
(a) Solids have fixed shape  
(b) Solids have fixed volume  
(c) Solids can flow  
(d) Solids have high densities  
(e) None of these
4. Which one of the following statements is correct?  
**Statement 1:** In solids, molecules are tightly packed.  
**Statement 2:** Force of attraction between molecules in solids is very weak.  
(a) Statement 1 only  
(b) Statement 2 only  
(c) Both statements are correct  
(d) Both statements are incorrect  
(e) None of these
5. Which one of the following is correct about gas?  
(a) A gas does not have a fixed shape.  
(b) A gas does not have fixed volume.  
(c) A gas can be compressed easily.  
(d) All the above  
(e) None of these
6. In which one of the following states of matter, maximum movement of molecules is noticed?  
(a) Solid (b) Liquid  
(c) Gas (d) All the above  
(e) None of these
7. The temperature at which a solid substance melts at atmospheric pressure is called its:  
(a) Melting point  
(b) Boiling point  
(c) Ignition temperature  
(d) Latent heat  
(e) None of these
8. Which one of the following statements is correct?  
**Statements 1:** Physical state of a substance can be changed by changing its temperature  
**Statement 2:** Physical state of a substance can be changed by changing pressure  
(a) Statement 1  
(b) Statement 2  
(c) Both statements are correct  
(d) Both statements are incorrect  
(e) None of these
9. Which one of the following statements is correct?  
**Statement 1:** If temperature of a solid substance is increased, the force of attraction between its molecules will also increase  
**Statement 2:** If temperature of a solid substance is increased, the force of attraction between its molecules will decrease  
(a) Statement 1 only  
(b) Statement 2 only  
(c) Both statements are correct  
(d) Both statements are incorrect  
(e) None of these
10. In which one of the following physical states of a substance force of attraction between molecules is maximum?  
(a) Solid (b) Liquid  
(c) Gas (d) All the above  
(e) None of these
11. Which of the following is a mixture?  
(a) Water  
(b) Methane  
(c) Mercury  
(d) Solution of sugar and water

- (e) None of these
- 12.** Which of the following materials falls in the category of pure substances?  
 (a) Air (b) Mercury  
 (c) Muddy water (d) Milk  
 (e) None of these
- 13.** Which of the following is an example of metalloid?  
 (a) Coal (b) Coke  
 (c) Copper (d) Boron  
 (e) None of these
- 14.** Which of the following statements is incorrect for metal?  
 (a) They are poor conductors of electricity.  
 (b) They are ductile.  
 (c) They are malleable.  
 (d) All the above  
 (e) None of these
- 15.** Which of the following elements is a non-metal?  
 (a) Mercury (b) Potassium  
 (c) Carbon (d) Calcium  
 (e) None of these
- 16.** Which of the following is an example of suspension?  
 (a) Solution of sugar and water  
 (b) Muddy water  
 (c) Milk  
 (d) Crystal of copper sulphate  
 (e) None of these
- 17.** Which one of the following statements is correct?  
 (a) Non-metals are generally hard.  
 (b) Non-metals have high tensile strength.  
 (c) Non-metals have low density.  
 (d) All the above  
 (e) None of these
- 18.** Which of the following statements is incorrect?  
 (a) A true solution is homogeneous mixture.  
 (b) Very small particles of the solution can scatter a beam of light.  
 (c) Solute particles of true solution cannot be separated from the mixture by the process of filtration.  
 (d) Particles of true solution cannot be seen with naked eyes.  
 (e) None of these
- 19.** Which one of the following shows the process of electrophoresis?  
 (a) True solution (b) Colloid  
 (c) Suspension (d) All the above  
 (e) None of these
- 20.** Which one of the following is a liquid non-metal?  
 (a) Gallium (b) Bromine  
 (c) Lead (d) Hydrogen  
 (e) None of these
- 21.** Which one of the following statements is incorrect?  
 (a) Increase in surface area, increases the rate of evaporation.  
 (b) Increase in temperature, increases the rate of evaporation.  
 (c) Increase in humidity, increases the rate of evaporation.  
 (d) Increase in wind speed, increases the rate of evaporation.  
 (e) None of these
- 22.** Vapourisation takes place:  
 (a) At all temperatures.  
 (b) At melting point of the liquid.  
 (c) At the boiling point of, the liquid.  
 (d) At the freezing point of the liquid.  
 (e) None of these
- 23.** The process behind disappearing of naphthalene balls with time is known as:  
 (a) Melting (b) Condensation  
 (c) Sublimation (d) Matter  
 (e) None of these
- 24.** Why does a book is solid at room temperature?  
 (a) It has fixed shape.  
 (b) It has fixed volume.  
 (c) It cannot flow.  
 (d) All the above  
 (e) None of these

- 25.** How much of a given substance is mixed with another substances is defined by \_\_\_\_ of a solution.  
 (a) Temperature (b) Concentration  
 (c) Solvent (d) Humidity  
 (e) None of these
- 26.** A solution is prepared by dissolving 20 g of NaCl in 200 g of water. Find the concentration of the solution.  
 (a) 11.1% (b) 9.01%  
 (c) 8% (d) 10%  
 (e) None of these
- 27.** The solubility of a solute 'X' in water is 35 g in 100 g of water. The density of the solution is  $1.5\text{ml}^{-1}$  The concentration of 'x' in the solution in % (m/v) is:  
 (a) 60% (b) 38.88%  
 (c) 34% (d) 88%  
 (e) None of these
- 28.** A mixture of sand and iodine can be separated by:  
 (a) Filtration (b) Evaporation  
 (c) Sublimation (d) Decantation  
 (e) None of these
- 29.** Which one of the following is a colloid?  
 (a) Cheese (b) Ice cream  
 (c) Milk (d) All the above  
 (e) None of these
- 30.** Which of the following is heterogeneous in nature?  
 (a) True solution (b) Colloid  
 (c) Suspension (d) Both (b) and (c)  
 (e) None of these
- 31.** Drugs in blood can be separated by which of the following technique?  
 (a) Filtration  
 (b) Paper Chromatography  
 (c) Distillation  
 (d) Threshing  
 (e) None of these
- 32.** \_\_\_\_method is used to separate two miscible liquids.  
 (a) Fractional distillation  
 (b) Magnetic separation  
 (c) Separating funnel  
 (d) Threshing  
 (e) None of these
- 33.** Which one of the following substances does not undergo sublimation?  
 (a) Ammonium chloride  
 (b) Iodine (c) Dry ice  
 (d) Ice (e) None of these
- 34.** In which of the following colloids the dispersion medium is solid?  
 (a) Whipped Cream (b) Marshmallow  
 (c) Paint (d) Mayonnaise  
 (e) None of these
- 35.** Which of the following conditions is essential for using fractional distillation as a method for separation of the components from mixture?  
 (i) The components must differ in their boiling points atleast by  $15^{\circ}\text{C}$  .  
 (ii) The components must have same boiling points.  
 (iii) The components must be miscible with each other.  
 (iv)The components, must be immiscible with each other.  
 (a) (i) and (ii) (b) (ii) and (iii)  
 (c) (i)and(iv) (d) (i) and (iii)  
 (e) None of these
- 36.** Which one of the following is an example of aerosol?  
 (a) Rubber sponge (b) Ruby  
 (c) Cloud (d) Ink  
 (e) None of these
- 37.** Which one of the following will give a true solution when dissolved in water?  
 (a) Chalk (b) Sand  
 (c) Sugar (d) Starch  
 (e) None of these
- 38.** Tincture of iodine refers to:  
 (a) Iodine dissolved in milk  
 (b) Iodine dissolved in ethanol  
 (c) Iodine dissolved in copper sulphate solution  
 (d) Iodine dissolved in common salt.  
 (e) None of these

- 39.** A mixture of water and benzene can be separated by using:
- (a) Filtration methods
  - (b) Separating funnel methods
  - (c) Centrifugation method
  - (d) Chromatography
  - (e) None of these
- 40.** A medical examination which fine precipitates in urine are to be separated. Which of the following separation methods should be used?
- (a) Paper chromatography
  - (b) Centrifugation
  - (c) Decantation
  - (d) Separating funnel
  - (e) None of these



## Answers – Key

<b>1.</b> C	<b>2.</b> D	<b>3.</b> C	<b>4.</b> A	<b>5.</b> D
<b>6.</b> C	<b>7.</b> A	<b>8.</b> C	<b>9.</b> B	<b>10.</b> A
<b>11.</b> D	<b>12.</b> B	<b>13.</b> D	<b>14.</b> A	<b>15.</b> C
<b>16.</b> B	<b>17.</b> C	<b>18.</b> B	<b>19.</b> B	<b>20.</b> B
<b>21.</b> C	<b>22.</b> C	<b>23.</b> C	<b>24.</b> D	<b>25.</b> B
<b>26.</b> B	<b>27.</b> B	<b>28.</b> C	<b>29.</b> D	<b>30.</b> D
<b>31.</b> B	<b>32.</b> A	<b>33.</b> D	<b>34.</b> B	<b>35.</b> D
<b>36.</b> C	<b>37.</b> C	<b>38.</b> B	<b>39.</b> B	<b>40.</b> B