

Question 21. What is the term used to describe the phase change of a liquid to a gas?

- (a) Boiling
- (b) Condensation
- (c) Melting
- (d) None of the above

Question 22. What term is used to describe the phase change of a solid to a liquid?

- (a) Freezing
- (b) Melting
- (c) Boiling
- (d) None of the above

Question 23. What is the term used to describe the phase change as a liquid becomes a solid?

- (a) Evaporation
- (b) Condensation
- (c) Freezing
- (d) None of the above

Question 24. Which has the least energetic molecules?

- (a) Solids
- (b) Liquids
- (c) Gases
- (d) Plasmas

Question 25. In which phase of matter would you expect compound (alcohol exists) at room temperature?

- (a) Solid
- (b) Liquid
- (c) Gas
- (d) Plasma

Question 26. Which of these choices will not change the state of matter?

- (a) Temperature
- (b) Crushing a crystal
- (c) Pressure
- (d) Heat

Question 27. If you leave water in a glass and some molecules turn into a gas, it is called:

- (a) Condensation
- (b) Evaporation
- (c) Extinction

Question 28. As of the 1990s, scientists have proved the existence of how many states of matter?

- (a) Two
- (b) Three
- (c) Four
- (d) Five

Question 29. Out of the following which is the densest state of matter?

- (a) Solids
- (b) Liquids
- (c) Gases
- (d) Plasmas

Question 30. Densities of two gases are in the ratio 1: 2 and their temperatures are in the ratio 2 : 1, then the ratio of their respective pressure is:

- (a) 1 : 1
- (b) 1 : 2
- (c) 2 : 1
- (d) 4 : 1

Question 31. Which of the following expression at constant pressure represents Charles law?

- (a) $V/T = \text{constant}$
- (b) $P/V = \text{constant}$
- (c) $V/T = \text{constant}$
- (d) None of the above

Question 32. For an ideal gas number of moles per litre in terms of its pressure P, gas constant R and temperature T is:

- (a) P/RT
- (b) PRT
- (c) P/RT
- (d) RT/P

Question 33. Rate of diffusion of a gas is:

- (a) Directly proportional to its density
- (b) Directly proportional to its molecular mass
- (c) Inversely proportional to the square root of its density
- (d) Inversely proportional to the square root of its molecular mass

Question 34. According to Graham's law at a given temperature, the ratio of the rates of diffusion r_A/r_B of gases A and B is given by:

- (a) $\sqrt{M_B}/\sqrt{M_A}$
- (b) $\sqrt{M_A}/\sqrt{M_B}$
- (c) $\sqrt{P_B}/\sqrt{P_A}$
- (d) $\sqrt{P_A}/\sqrt{P_B}$

Question 35. A bottle of ammonia and a bottle of dry hydrogen chloride connected through a long tube are opened simultaneously at both ends, the white ammonium chloride ring first formed will be:

- (a) At the center of the tube
- (b) Near the hydrogen chloride bottle
- (c) Near the ammonia bottle
- (d) Throughout the length of the tube

Question 36. Select the one that is not a matter:

- (a) Feeling of hot
- (b) Smoke
- (c) Humidity
- (d) Water

Question 37. Which is incorrect statement:

- (a) Matter is continuous in nature.
- (b) Of the three states of matter, the one that is most compact is solid state.
- (c) In solid state inter-particles space (i.e., empty space) is minimum.
- (d) The density of solid is generally more than that of a liquid.

Question 38. Select the one that when used would be considered as best condition for liquification of a gas:

- a) Increasing the temperature
- b) Decreasing the pressure
- c) Increasing the pressure and decreasing the temperature
- d) Decreasing the pressure and increasing the temperature.

Question 39. Select the correct order of evaporation for water, alcohol, petrol and kerosene oil:

- (a) Water > alcohol > kerosene oil > petrol
- (b) Alcohol > petrol > water > kerosene oil
- (c) Petrol > alcohol > water > kerosene oil
- (d) Petrol > alcohol > kerosene oil > water

Question 40. Which one is a sublime substance?

(a)Table salt

(b)Sugar

(c)Iodine

(d)Potassium iodide

Answer

21.(a)

22.(b)

23.(c)

24.(a)

25.(b)

26.(b)

27.(b)

28.(d)

29.(a)

30.(a)

31.(c)

32.(c)

33.(d)

34.(c)

35.(b)

36.(a)

37.(a)

38.(c)

39.(d)

40.(c)