

9 Sc Matter in our surroundings

9.0138

9.0138

9.0138. Which condition out of the following will increase the evaporation of water?

- (a) Increase in temperature of water
- (b) Decrease in temperature of water
- (c) Less exposed surface area of water
- (d) Adding common salt to water

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Answer

9.0138

A

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9.0139

9.0139

9.0139. In which of the following conditions, the distance between the molecules of hydrogen gas would increase?

- (i) Increasing pressure on hydrogen contained in a closed container
- (ii) Some hydrogen gas leaking out of the container
- (iii) Increasing the volume of the container of hydrogen gas
- (iv) Adding more hydrogen gas to the container without increasing the volume of the container

- (a) (i) and (iii)
- (b) (i) and (iv)
- (c) (ii) and (iii)
- (d) (ii) and (iv)

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Answer

9.0139

C

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9.014

9.014

9.0140. The boiling points of diethyl ether, acetone and n-butyl alcohol are 35°C , 56°C and 118°C respectively. Which one of the following correctly represents their boiling points in kelvin scale?

- (a) 306 K, 329 K, 391 K
- (b) 308 K, 329 K, 392 K
- (c) 308 K, 329 K, 391 K
- (d) 329 K, 392 K, 308 K

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Answer

9.014

C

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9.0141

9.0141

9.0141. Choose the correct statement of the following

- (a) conversion of solid into vapours without passing through the liquid state is called vapourisation.
- (b) conversion of vapours into solid without passing through the liquid state is called sublimation.
- (c) conversion of vapours into solid without passing through the liquid state is called freezing.
- (d) conversion of solid into liquid is called sublimation.

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Answer

9.0141

B

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9.0142

9.0142

9.0142. On converting 25°C , 38°C and 66°C to kelvin scale, the correct sequence of temperature will be

- (a) 298 K, 311 K and 339 K
- (b) 298 K, 300 K and 338 K
- (c) 273 K, 278 K and 543 K
- (d) 298 K, 310 K and 338 K

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Answer

9.0142

A

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9.0143

9.0143

9.0143. A few substances are arranged in the increasing order of 'forces of attraction' between their particles. Which one of the following represents a correct arrangement?

- (a) Water, air, wind
- (b) Air, sugar, oil
- (c) Oxygen, water, sugar
- (d) Salt, juice, air

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Answer

9.0143

C

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9.0144

9.0144

9.0144. During summer, water kept in an earthen pot becomes cool because of the phenomenon of

- (a) diffusion
- (b) transpiration
- (c) osmosis
- (d) evaporation

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Answer

9.0144

D

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9.0145

9.0145

9.0145. The property to flow is unique to fluids. Which one of the following statements is correct?

- (a) Only gases behave like fluids
- (b) Gases and solids behave like fluids
- (c) Gases and liquids behave like fluids
- (d) Only liquids are fluids

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Answer

9.0145

C

9 Sc Matter in our surroundings

9.0146

9.0146

9.0146. Seema visited a Natural Gas Compressing Unit and found that the gas can be liquefied under specific conditions of temperature and pressure. While sharing her experience with friends she got confused. Help her to identify the correct set of conditions

- (a) Low temperature, low pressure
- (b) High temperature, low pressure
- (c) Low temperature, high pressure
- (d) High temperature, high pressure

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Answer

9.0146

C

9 Sc Matter in our surroundings

9.0147

9.0147

9.0147. Which one of the following sets of phenomena would increase on raising the temperature?

- (a) Diffusion, evaporation, compression of gases
- (b) Evaporation, compression of gases, solubility
- (c) Evaporation, diffusion, expansion of gases
- (d) Evaporation, solubility, diffusion, compression of gases

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Answer

9.0147

C