

Class Practice 2.3

1. Which of the following process is NOT used in extracting common salt from sea water?

- A. evaporation
- ☒ B. distillation : extract water
- C. crystallization
- D. filtration

2. When a glass of sea water is left on a table under room conditions for 10 days, what will be observed?

- A. Sea water becomes milky.
- ☒ B. Some crystals are formed. crystallization
- C. Some white powder is formed.
- D. Sea water remains unchanged.

3. When a solution of sodium chloride is concentrated by heating for preparation of crystals, which of the following procedures can be used to check whether the solution is concentrated or not?

- 被濃縮
濃的 test of a saturated solution
- A. Taste the solution to see if it is salty enough.
 - B. Observe to see if the solution turns milky.
 - ☒ C. Dip a glass rod into the solution, take it out to see if small crystals appear on the rod.
 - D. Measure the volume of the solution to see if it decreases at least by half of the initial volume.

4. If 100 cm³ of water can dissolve a maximum of 30 g of salt Y at room temperature, which of the following would produce a saturated solution?

gram of salt to volume of water ratio $\frac{30}{100} = 0.3$
 > 0.3
Saturated Solution

- ☒ (1) Add 20 g of salt Y to 50 cm³ water at room temperature. $\frac{20}{50} = 0.4$
- ☒ (2) Add 50 g of salt Y to 100 cm³ water at room temperature. $\frac{50}{100} = 0.5$
- (3) Add 40 g of salt Y to 200 cm³ water at room temperature. $\frac{40}{200} = 0.2$

- ☒ A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

5. Which of the following statements concerning a saturated sodium chloride solution is correct?

- (1) The boiling point of the solution^{water} is at 100°C.
- (2) The amount of sodium chloride dissolved in water is the maximum at that particular temperature. ✓
- (3) The solution is so concentrated that it cannot dissolve any other substances. ✓

- A. (1) only
- B. (2) only
- C. (1) and (3) only
- ☒ D. (2) and (3) only

higher temperature,
greater solubility