Name _____ **Reference Table G Questions**

___ 1) An unsaturated solution is formed when 80. grams of a salt is dissolved in 100. grams of water at 40.°C. This salt could be

1) KCl 3) NaCl
2) KNO_3 4) $NaNO_3$

___ 2) According to Reference Table G, which solution is saturated at 30°C?

1) 12 grams of $KClO_3$ in 100 grams of water
2) 12 grams of $KClO_3$ in 200 grams of water
3) 30 grams of NaCl in 100 grams of water
4) 30 grams of NaCl in 200 grams of water

___ 3) A solution is formed by dissolving 45 grams of NH_4Cl in 100 grams of H_2O at 70ºC. Which statement correctly describes this solution?

1) NH_4Cl is the solute, and the solution is saturated.
2) NH_4Cl is the solute, and the solution is unsaturated.
3) NH_4Cl is the solvent, and the solution is saturated.
4) NH_4Cl is the solvent, and the solution is unsaturated.

___ 4) Which is a saturated solution?

1) 40 g NH_4Cl in 100 g water at 50ºC
2) 2 g SO_2 in 100 g water at 10ºC
3) 52 g KCl in 100 g water at 80ºC
4) 120 g KI in 100 g water at 20ºC

___ 5) A solution contains 14 grams of KCl in 100. grams of water at 40ºC. What is the minimum amount of KCl that must be added to make this a saturated solution?

1) 14 g 2) 19 g 3) 25 g 4) 44 g

___ 6) According to Reference Table G, approximately how many grams of $KClO_3$ are needed to saturate 100 grams of H_2O at 40°C?

1) 6 2) 16 3) 38 4) 47

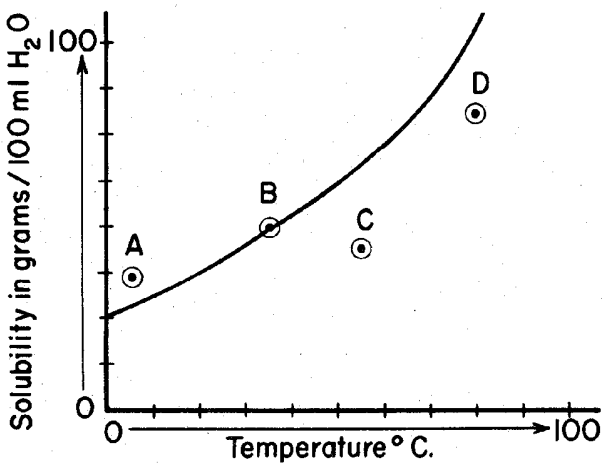
___ 7) A solution containing 60. grams of $NaNO_3$ completely dissolved in 50. grams of water at 50ºC is classified as being

1) saturated
2) supersaturated
3) dilute and unsaturated
4) dilute and saturated

___ 8) A solution contains 70 grams of $NaNO_3$ in 100 grams of water at 10ºC. How many additional grams of $NaNO_3$ are required to saturate this solution?

1) 10 2) 20 3) 60 4) 70

___ 9) Base your answer to the following question on the diagram below which represents the solubility curve of salt X. The four points on the diagram represent four solutions of salt X.



Which point represents a supersaturated solution of salt X?

1) A 2) B 3) C 4) D

___ 10) A solution contains 35 grams of KNO_3 dissolved in 100 grams of water at 40°C. How much more KNO_3 would have to be added to make it a saturated solution?

1) 29 g 3) 12 g
2) 24 g 4) 4g

___ 11) Based on Reference Table G, when 100 grams of water saturated with KNO_3 at 70°C is cooled to 25°C, the total number of grams of KNO_3 that will precipitate is

1) 40 2) 45 3) 80 4) 95

___ 12) A saturated solution of $NaNO_3$ is prepared at 60.ºC using 100. grams of water. As this solution is cooled to 10.ºC, $NaNO_3$ precipitates (settles) out of the solution. The resulting solution is saturated. Approximately how many grams of $NaNO_3$ settled out of the original solution?

1) 46 g
2) 61 g
3) 85 g
4) 126 g

___ 13) What is the mass of NH_4Cl that must dissolve in 200. grams of water at 50.°C to make a saturated solution?

1) 26 g
2) 42 g
3) 84 g
4) 104 g

___ 14) When 5 grams of KCl are dissolved in 50. grams of water at 25°C, the resulting mixture can be described as

1) heterogeneous and unsaturated
2) heterogeneous and supersaturated
3) homogeneous and unsaturated
4) homogeneous and supersaturated

___ 15) What is the total mass of KNO_3 that must be dissolved in 50. grams of H_2O at 60.°C to make a saturated solution?

1) 32 g
2) 53 g
3) 64 g
4) 106 g