1.	State whether each of the following substances is expected to form an IONIC or MOLECULAR solution. (a) $RbBr(s)$	
	(b) CHCl ₃ (l)	
	(c) $CSNO_3(s)$	
	(d) $CuSO_4(5)$	
	(e) $S_8(s)$	

(f)	$\operatorname{CrCl}_3(\mathbf{s})$
(g)	$\rm NaCH_{3}COO(s)$
(h)	lCl(s)
(i)	$\mathrm{HNO}_3(\mathrm{l})$

(j) $CH_4(g)$

2.	Write equations to show the dissolving of the following substances in water. (a) $(NH_4)_2SO_4(s)$
	(b) CH ₃ CH ₂ OH(l)
	(c) $K_2CO_3(s)$
	(d) $CaCl_2(s)$

3.	Write the equation for the equilibrium reaction existing in each of the following saturated aqueous solutions.
	(a) K ₃ PO ₄
	(b) NH_4Cl
	(c) $Al(NO_3)_3$
4	Write the crystallization reaction involving MgBr ₂ (s).
4.	write the crystalization reaction involving MgDr ₂ (s).
5.	Write the dissolving reaction involving $C_6H_{12}O_6(s)$.

6.	A flask contains a saturated solution of NaCl in water. You carefully pour off 100 mL of the solution
	taking care not to let any crystals of salt fall into the new container. Is the salt solution in the new
	container saturated? Why?

7. A student half-filled a 100 mL beaker with water and added a few grams of NaCl crystals. Seeing the crystals settle immediately to the bottom of the beaker, the student said the solution was saturated because some undissolved solid was present. Was the student correct? Why?