16. Which salt has the greatest change in solubility between 30°C and 50°C? (1) KNO₃ (2) KCl (3) NaNO₂ (4) NaCl

17. Which of the following substances is least soluble in 100. g of water at 60°C? (1) NaCl (2) KCl (3) NH₄Cl (4) HCl

18. A student obtained the following data in a chemistry laboratory.

<table>
<thead>
<tr>
<th>Trial</th>
<th>Temperature (°C)</th>
<th>Solubility (g KNO₃/100 g H₂O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>32</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>43</td>
<td>70</td>
</tr>
<tr>
<td>4</td>
<td>48</td>
<td>60</td>
</tr>
</tbody>
</table>

Based on the reference tables, which of the four trials listed seems to be incorrect? (1) 1 (2) 2 (3) 3 (4) 4

19. How many grams of the compound potassium chloride (KCl) must be dissolved in 200. g of water to make a saturated solution at 60°C? (1) 30 g (2) 45 g (3) 56 g (4) 90 g

20. Which of the following is insoluble?
   (1) calcium chloride
   (2) ammonium phosphate
   (3) barium sulfate
   (4) potassium chromate

21. Which of the following is not soluble?
   (1) sodium chromate
   (2) lead(II) iodide
   (3) lithium hydroxide
   (4) ammonium sulfate

22. If solutions of sodium chromate and potassium carbonate are mixed and poured into a filter, what will pass through the filter? (1) sodium chromate, potassium chromate, and carbonate ions (2) sodium and carbonate ions only (3) potassium and chromate ions only (4) water only

23. Which amount of a compound dissolved in 100. g of water at the stated temperature represents a solution that is saturated? (1) 20 g KClO₃ at 80°C (2) 40 g KNO₃ at 25°C (3) 40 g KCl at 60°C (4) 60 g NaNO₃ at 40°C

Refer to Table G; if on the curve, sat.