***Some molar masses to help speed things up for you***☺

C3H8 = 44.1

O2 = 32

H2O = 18

Al2(SO3)3 = 294.2

NaOH = 40

Na2SO3 = 126.04

Al2O3 = 101.96

Fe = 55.85

CuCl2 = 134.45

NaNO3 = 84.995

Cu(NO3)2 = 187.56

NaCl = 58.443

Ba3(PO4)2 = 601.92

Na3(PO4) = 163.94

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***Some answers so you can check your work as you go***☺

**1)**

1. O2 is LR and C3H8 is XS
2. 1.55 g H2O made
3. 13.87 g C3H8 left

**2)**

1. Al2(SO3)3 is LR and   
    NaOH is XS
2. 12.85 g Na2SO3 made
3. 1.842 g NaOH left

**3)**

1. Fe is LR and Al2O3   
   is XS
2. 0.061 mol Fe3O4 made
3. 17.1 g Al2O3 left

**4)**

1. CuCl2 + 2NaNO3 🡪   
   Cu(NO3)2 + 2NaCl
2. CuCl2 is LR
3. 0.224 mol NaCl made
4. 21.01 g Cu(NO3)2 made
5. 0.011 mol NaNO3 left
6. 86.3% yield

**5)**

* 6NaCl +Ba3(PO4)2 🡪   
  2Na3(PO4) + 3BaCl2
* NaCl is LR

1. 935.0 g Na3(PO4) made and 1781.2 g BaCl2 made
2. 283.52 g Ba3(PO4)2 left

**6)**

1. 162.23 g calcium containing product made
2. 249.67 g XS left

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