SEPARATION OF MIXTURES

MARKING SCHEME

1. Remove the iron fillings from the mixture using a magnet (½) Add water to the remaining mixture (½) and stir to dissolve sodium carbonate (½) Filter (½) and collect the residue of lead II carbonate (½) Dry the residue (½).

2.   a) Difference in boiling points
           b)   Nitrogen, argon, oxygen
           c)   Manufacture of ammonia
             * Store semen   for artificial insemination *Any one*
             * As a refrigerant   *1mk*

3.   -   Place the mixture in a beaker add ester Z dissolve while x & y do not ✓ ½
                -    Filter the mixture to obtain x & y as residue
                -    Place the residue in a beaker add Ethanol Y dissolves✓ ½
                -    Filter the mixture to obtain X as a residue. ✓ ½
                -    Filtrate contain Y, leave it in open. For ethanol to evaporate✓ ½
                    leaving Y.

4.   a) Maltose✓$^1/_2$, fructose✓$^1/_2$ and galactose✓$^1/_2$
      b) Galactose✓$^1/_2$ has highest absorbence, low solubility

5.   i) I. Soap✓1, sodium✓1 stearate✓1
        II. Hydrolysis✓1
      ii) To precipitate ✓1soap/ solid L

12.   a) Fractional distillation✓1
        b) Sublimation✓1
        c) Solvent extraction✓1