

## Separating Mixtures

45. The layer having the lower density (water) is on top.

46 a) distillation

b) evaporation + recrystallization

47. a) distillation

b) hand separation  $\leftarrow$  solvent

c) filtration + gravity separation

d) paper, column or thin-layer chromatography

e) filtration, distillation

48. recrystallization

53. I) filtration (liquids from sand/irra)

II) magnet (iron from sand)

III) separatory funnel (water from gas)

IV) distillation (water from dyes)

V) re-dissolve dyes + use

chromatography to separate them

54. i) filtration (liquid from solids)  
ii) gravity separation (two types  
of sand)  
iii) distillation (methanol from  
hexanol)

55. i) add alcohol to dissolve  
naphthalene  $\xrightarrow{\text{filter}}$  distill  
ii) add water to dissolve  
potassium sulphate  $\xrightarrow{\text{filter}}$  distill  
iii) Calcium carbonate  $\xrightarrow{\text{filter}}$  is left

59. a) Physical  
b) Chemical  
c) chemical  
d) chemical  
e) physical  
f) physical

60 + 61 I will collect for  
marks!  
=