REVERSIBLE REACTIONS

MARKING SCHEME

1. Solution turns from Orange to yellow (1mk)
Potassium hydroxide produces OH^- ions which remove H^+ ions from the solution as water ($^1/_2$mk) making equilibrium to shift to the left. (favours backward reaction) ($^1/_2$mk

2.

(i) Equilibrium shift to the right

(1mark)

(ii) Shift to the right

(1mark)

(iii) Shifts to the left (equivalent to increase in pressure)

(1mark)

3. (a) rates equal [1]
concentrations do not change / macroscopic properties remain constant [1]
accept amounts do not change
(b) endothermic [1]
cond favoured by high temperatures [1]
(c) (i) move to left [1]
cond bigger volume / more moles etc [1]
do not insist on “gas”
(ii) less yellow solid / more brown liquid [1]
accept yellow to brown / less solid more liquid / goes brown