(i) The probability of picking six tickets of the same colour is given by

$$\Pr(\text{six of the same colour}) = 3 \text{ x } \frac{6!}{6!0!0!}(\tfrac{1}{3})^6(\tfrac{1}{3})^0(\tfrac{1}{3})^0 = \frac{1}{243}.$$

The factor of 3 is present because there are three different colours.

(ii) The probability of picking five tickets of one colour and one ticket of another colour is

$$\Pr(\text{five of one colour; one of another}) = 3 \text{ x } 2 \text{ x } \frac{6!}{5!1!0!}$$