Question 5:
When 3 coins are tossed simultaneously all possible outcomes are
HHH, HHT, HTH, THT, HTT, THH, TTT, TTH
Total number of possible outcomes = 8
Let $E_1$ be the event of getting at least 2 heads
Then, $E_1$= event of getting 2, 3 heads
So, the favorable outcomes are HHH, HHT, HTH, THH
Number of favorable outcomes = 4
P(getting of favorable outcomes = $P(E_1)$ = 4/8 = 1/2

Question 6:
Total number of bulbs = 200
Number of defective bulbs = 16
(i) Let $E_1$ be the event of getting a defective bulb
Total number of defective bulbs = 16

$$\therefore \text{P(getting defective bulbs)} = P(E_1) = \frac{16}{200} = \frac{2}{25}$$

(ii) Let $E_2$ be the event of "getting non - defective bulb"

$$\therefore \text{P(getting non defective bulb)} = P(E_2) = 1 - \frac{16}{200} = \frac{184}{200} = \frac{23}{25}$$

Question 7:
Total number of tickets sold = 250
Number of prizes = 5
Let E be the event getting a prize
Number of favorable outcomes = 5
P(getting a prize) = P(E) = 5/250 = 1/50

Question 8:
Total number of balls = (white + red + green) balls
= 5 + 6 + 4 = 15 balls

(i) Number of green balls = 4

$$\text{P(getting a green ball)} = \frac{4}{15}$$

(ii) Number of white balls = 5

$$\text{P(getting a white ball)} = \frac{5}{15} = \frac{1}{3}$$

(iii) Number of non - red = 1 - P(getting red)

$$= 1 - \frac{6}{15} = \frac{9}{15} = \frac{3}{5}$$

Question 9:

Total number of balls = 3 + 5 + 7 = 15

(i) Total number of white balls = 7

P(getting a white ball) = $\frac{7}{15}$

(ii) Total number of Red balls = 3

P(getting a red ball) = $\frac{3}{15} = \frac{1}{5}$

(iii) P(getting no red ball) = 1 - P(getting a red ball)

$= 1 - \frac{1}{5} = \frac{4}{5}$

(iv) Total number of red and white balls = 10

P(getting a red or white ball) = $\frac{10}{15} = \frac{2}{3}$

Question 10:

Total number of balls = 7 + 5 + 3 = 15

(i) Total number of red balls = 5

P(getting a red ball) = $\frac{5}{15} = \frac{1}{3}$

(ii) Total number of black or white balls = 10

P(getting a black or white balls) = $\frac{10}{15} = \frac{2}{3}$

(iii) P(getting not a black ball) = 1- P(getting a black ball)

$= 1 - \frac{7}{15} = \frac{8}{15}$

********** END **********