

## Assignment 7

### Statistics

Ans1. Total No. of times dice is thrown = 1402

Number of Times outcome is 6 = 190

Probability of the outcome is 6 = Number of times outcome is 6/Total no. of times dice is thrown

$$= 190/1402$$

$$= 0.135$$

Ans2. Frequencies at odd places =  $52+44+20+56+40=212$

Probability getting a digit with unit place digit is odd =  $212/400=0.53$

**Ans3.** Probability that it will last more than 9000km =  $375+445/1100$   
 $=820/1100=0.745$

Ans4. Probability that it will need to be replaced after it has covered somewhere between 4000 km and 14000 km =  $260+375/1100=535/1100$   
 $=0.577$

**Ans5.**  $\Rightarrow$  Total possible outcomes = 10

$\Rightarrow$  No. of Favorable outcomes = 5,7,9  $\Rightarrow$  3

Therefore,

$$\text{Probability} = 3/10 = 0.3$$

**Ans6.** As number of even numbers lesser than 4 is only 1, that is 2

So number of possible outcomes=1

Number of favorable outcomes=8

Probability =  $1/8=0.125$

Ans7. Probability =  $2/6=1/3=0.33$

Ans8. Probability =  $2/9=0.22$

Ans9. Probability =  $2/3=0.66$

Ans10. Probability =  $1/3=0.33$

Ans11. Probability =  $1/2= 0.5$

Ans12. Probability =  $1/6=0.166$

Ans13. Probability =  $2/9=0.22$

Ans 14. Probability =  $1/15=0.06$

Ans15. Probability =  $1/2$