**NUMERACY AND DATA ANALYSIS PRACTICE SHEET 5**

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| 1 | Provide some real world examples of use of probability. |  |
| 2 | Calculate the probability of having number 2 when throwing a dice which is numbered from 1 to 6. |  |
| 3 | There are three different types of tea bags in a box of total 500. Out of which 175 are green tea, 100 are lemon flavoured tea and rest of them are normal tea.  a) What is the probability of having normal tea?  b) What is the probability of having green tea?  c) What is the probability of having lemon flavoured tea? |  |
| 4 | What is the probability of having number 1 or 5 or 6 when rolling a dice? |  |
| 5 | What is the probability of NOT having number 6 when rolling a dice? |  |
| 6 | In a bag, there are 200 different coloured apples out of which 50 are red, 75 are green and rest of them are mixed coloured.  a) What is the probability of having red or mixed coloured apples?  b) What is the probability of having green or mixed coloured apples? |  |
| 7 | In a super market, 60% of customers buy normal buns, 60% of them buy seeded buns and 30% of customers buy both normal and seeded buns. What proportion of customers buy **at least** one type of buns? |  |
| 8 | In a school, 55% of students use buses as the primary travelling mode while 30% of them use family car and 30% of them use trams. If 20% of students use all three transport methods, what is the probability of students use **at least** one transport method? |  |
| 9 | Tossing a coin in four different time period. What is the probability of having 'head' on all four occasions? |  |
| 10 | In a bakery, machine A produces 6000 breads in which 600 are damaged. Machine B produces 7000 breads in which 900 are damaged. If one bread is taken out from each machine, what is the probability that both breads are damaged? |  |
| 11 | A die, numbered from 1 - 6, is thrown in three different time periods.  a) What is the probability of having number 5 in all three times?  b) What is the probability of NOT having 5 in all three times? |  |
| 12 | In a pen manufacturing factory, there are three machines called A, B and C.  Machine A produces 2000 pens in which 500 are blue. Machine B produces 4000 of pens in which 600 are blue. Machine C produces 8000 of pens which 1000 are blue. If one pen is selected from each machine, what is the probability that all three pen from machine A, B and C will be blue coloured? |  |
| 13 | In a bag of 500 apples, 100 are red. Two apples are to be taken out from the bag one after another without replacement. What is the probability of taking out one red apple followed by another red apple? |  |
| 14 | In a raffle draw, raffle box includes 1000 tickets in which 200 are bought by university students. Three winners are to be chosen. One ticket will be drawn and then second one and third one will be followed one after another without replacement. What is the probability of having tickets which are bought by university students in all three occasions one after another? |  |