**PRACTICE-2B** **MA235**

**I )** Assume that the amount of time children spend watching television per year is normally distributed with a mean of 1400 hours and a standard deviation of 100 hours.

Find :

**a )** The percentage of children watching television more than 1250 hours per year.

………………………………………………………

**b )** The percentage of children watching television between 1550 hours and 1650 hours

per year. ……………………………………………

**II )** Based on a normal distribution, which score is better ?

A score of 85 on a test for which the mean was 76 and the standard deviation was 5 or

a score of 75 on a test for which the mean was 62 and the standard deviation was 4 .

………………………………………………………………………….

**III )** A raffle has a jackpot win of $ 20,000. The probability of winning this jackpot price

is 0.02. A ticket for this raffle costs $ 20. Find the expected value of winning the jackpot.

……………………………………………………………………

**IV )** Given the following probability distribution

|  |  |
| --- | --- |
| **X** | **P ( X )** |
| **0** | **0.22** |
| **1** | **0.03** |
| **2** | **0.15** |
| **3** | **0.34** |
| **4** | **0.26** |
|  |  |

Find the following values :

**a )** The mean **a)** ………………………………..

**b )** The standard deviation **b)**…………………………………..

**V )** Use the frequency table below to find the following:

**a )** The mode **a ) …………………………………………**

**b )** The median **b ) ………………………………………….**

**c )** The mean **c ) ………………………………………….**

|  |  |
| --- | --- |
| X | **FREQUENCY** |
| 14 | 5 |
| 15 | 7 |
| 16 | 2 |
| 17 | 6 |
| 18 | 8 |
| 19 | 7 |