**PRACTICE-2A** **MA235**

**I )** Assume that the amount of time children spend watching television per year is normally distributed with a mean of 1500 hours and a standard deviation of 100 hours.

Find :

**a )** The percentage of children watching television more than 1650 hours per year.

………………………………………………………

**b )** The percentage of children watching television between 1450 hours and 1600 hours

 per year. ……………………………………………

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

A score of 80 on a test for which the mean was 67 and the standard deviation was 5 or

a score of 85 on a test for which the mean was 75 and the standard deviation was 8 .

………………………………………………………………………….

**III )** A raffle has a jackpot win of $ 10,000. The probability of winning this jackpot price

 is 0.01. A ticket for this raffle costs $ 10. Find the expected value of winning the jackpot.

……………………………………………………………………

**IV )** Given the following probability distribution

|  |  |
| --- | --- |
|  **X**  |  **P ( X )** |
|  **0** |  **0.16** |
|  **1** |  **0.05** |
|  **2** |  **0.15** |
|  **3** |  **0.44** |
|  **4** |  **0.20** |
|  |  |

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 |  8 |
|  15 |  2 |
|  16 |  4 |
|  17  |  6 |
|  18 |  8 |
|  19 |  7 |