Answer all the questions.   **PART A**   **5 x 2 = 10 Marks**

1   Find MGF of Poisson Distribution

2   Define Statistics

3   What is the difference between internal and external data?

4   Define Sampling Given an example

5   What is the Standard error of Mean?

Answer any Two questions. PART B   2x 15= 30marks

6   (a) Find μ_1' and μ_2' from moment generating function
    (b) Derive MGF of Normal distribution **(5+10)**

(OR)

7   (a)Below is given the frequency distribution of marks in mathematics obtained by 100 students in a class

Marks	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
No.of students	7	11	24	32	9	14	2	1

Draw the Ogives (less than and more than curves) and use the curve to determine the median.
(b) Write down the any five applications of statistics. **(5+10)**

8   a) The adjoining table ten of random numbers of two digits each is provided to the field investigator.

34	96	61	85	49
78	50	02	27	13

How should he use this table to make a random selection of 5 plots out of 40?
b) Define the terms Sampling Distribution and standard error and Explain it. **(10+5)**

(OR)

9 Explain about stratified random sampling and write down the merits and demerits of the sampling.

Answer the following. PART C 1x 10= 10marks

10. Obtain the regression lines from the following data
$n = 70, \sum x = 80, \sum y = 60, \sum x^2 = 1680, \sum y^2 = 320,$
$\sum xy = 480$ and find the Correlation coefficient also.