

Mid-West University
Examinations Management Office
Birendranagar, Surkhet
End Semester Examination, 2081

Subject: DE 451 Statistical Models in Economics II (old)

FM:60

Level: Bachelor

Semester: V

Time: 3 Hours

PM: 30

Candidates are required to answer the questions in their own words as far as practicable.

Attempt ALL of the following Very Short Answer Questions.

10x1=10

1. Define n and N.
2. Write the relation between regression and correlation coefficient.
3. The value of correlation coefficient lies in.....
4. Write the property of median.
5. Write the formula for calculating regression coefficient.
6. Define null hypothesis.
7. List main types of sampling.
8. Define type one error in hypothesis testing.
9. Write any two property of Regression coefficient.
10. In which condition can the value of mean not be calculated?

Attempt any THREE of the Following Short Questions.

3x8=24

11. Define type I and type II errors in hypothesis testing. Why hypothesis testing is important in economic study.
12. find mean and median from the following data

X	10-20	20-30	30-40	40-50	50-60
f	15	17	19	18	13

13. Calculate regression coefficient from the following data

X	1	2	3	4	5
f	4	5	6	8	9

14. A sample pole of 100 voters chosen from all voters in a given district indicates that 55% of them were favor of a particular candidate. find 95% and 99% confidence limits for the proportion of all the voters in favor of this candidates.

Attempt any TWO of the Following Long Questions.

2x13=26

15. A population consists of four number 1,2,3 and 4 find
 - a. All possible samples of size two drawn with replacement.
 - b. Calculate mean and variance of population.
 - c. Calculate the variance of the sampling distribution of sample mean.
16. Two line of regression are $2x - 3y = 2$, $x = y + 2$, find the mean correlation coefficient if the variance of x is 4.
17. Define sampling and discuss about its types.