

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

**Subject: SOCIO 542 Basic Statistics for Sociology**  
Level/Program: Master (M.A) Semester: IV (Chance) Time: 3 Hours

FM: 60  
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. Write down any two precautions in chart preparing.
2. Give one example of bivariate data.
3. Write any two tips for entering data in SPSS.
4. What is the formula of Single mean in T-test?
5. Mention one example of cross-sectional data.
6. Clarify the term disposition.
7. Mention the elements of data processing.
8. Find out percentage in following data:

Male	65	150	72	86	107	32
Female	50	100	46	67	82	20

9. Conceptualize inferential statistics.
10. Define the term rank.

**Attempt any THREE of the Following Short Questions.**

**3x8=24**

11. What is frequency distribution? Explain different methods of calculate dispersion. Calculate the mean deviation and its coefficients from the following data:

Monthly Incomes	100-200	200-300	300-400	400-500	500-600	600-700	700-800	800-900
No. of Family	5	5	15	10	5	4	3	3

12. Discuss the meaning, utility and limitations of the diagrammatic representation of statistical data. Point out general rules that should be kept in mind while constructing diagram.
13. Write the steps of testing hypothesis. A sample of 300 students of undergraduate and 300 of post graduate classes of a university were asked to give their opinion towards the autonomous colleges. 190 of the undergraduate and 210 of the post graduate student favored the autonomous status.  
Present the above fact in the form of frequency table, and test at 5% level, that opinions of undergraduate and post graduate student on autonomous status of colleges are independent. [ $\chi^2_{0.05}$  for 1 d.f. = 3.841]

14. Nepal Telecom Company conducts a survey to determine the ownership of cellular phones in different age group. The result for 1000 household are shown in the table given below. Test the hypothesis that the proportions owning cellular phones are the same for different age groups. [ $\chi^2_{0.05}$  for 1 d.f. = 3.841]

Age Group	18-24	25-54	55-64	≥65	Total
Cellular Phone					
Yes	50	80	70	50	250
No	200	170	180	200	750
Total	250	250	250	250	1000

Attempt any TWO of the Following Long Questions.

2x13 =26

15. What are the key characteristics of symmetrical relationships, and how do they differ from other types of relationships in terms of power balance and communication dynamics?
16. Define Chi-square test? Explain its steps. A manufacture of TV sets was trying to find out what variable influenced the purchased of TV set. A sample of 500 households was selected and the information obtained is classified as shown below:

	Have TV Set	Do not Have TV Set
Low income group	0	250
Middle income group	50	100
High income group	80	20

[ $\chi^2_{0.05}$  for 2d.f.=5.991]

17. What is a measure of Dispersion? Calculate the mean, median and mode from following distribution by taken 18 as class interval:

8	40	68	32	58	50	41	41	48	13	38	60
6	53	41	61	28	52	28	20	36	51	38	70
45	56	63	15	70	34	3	52	39	18	18	52
61	26	40	20	50	37	52	41	16	16	46	26
58	36	33	36	52	30	34	41	37	43	32	56
40	24	99	12	55	27	92	80	26	86	16	36
51	16	30	10	50	37	52	41	16	16	36	16
71	36	50	30	50	37	52	41	16	16	56	36

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