

Indian Statistical Institute
Documentation Research and Training Centre
M.S. Library and Information Science (2017-19)
Semester- II (Final-Term)

Paper 8: Elements of Statistics and Research Methodology

Time: 3 Hours

Marks: 60

Date: 07/05/2018

Answer all questions (6X10)

1. (a) Find the mean, median, mode, range, mean deviation and standard deviation for the data-set given below: **[8]**
- (i) 1,3,5,7,9.
 - (ii) 5,5,5,5,5.
- (b). Classify the following random variables as discrete or continuous. **[2]**
- (i) The number of automobile accidents each year in Hong Kong.
 - (ii) The length of time to do problem 1 above.
 - (iii) The amount of milk produced yearly by a particular cow.
 - (iv) The number of eggs laid each month by 1 hen.
2. (a). Define measurement. What are the most widely used classification of measurement scales? Write a short note on the same. **[5]**
- (b). Explain **any Two** of the following: **[2X2.5=5]**
- (i) Null hypothesis and alternative hypothesis
 - (ii) Type I and type II error
 - (iii) Two tailed test and one tailed test
 - (iv) z- test and t-test

3. *“Ethnography is traditionally associated with anthropology, wherein the anthropologist visits a (usually) foreign land, gains access to a group (for example a tribe or village), and spends several years living with them with the aim of uncovering their culture”.*

The group being studied does not know they are being observed. This type of observation is called

Complete the above statement. Justify your answer with proper explanation, elaborating its strengths and limitations. **[10]**

4. Questionnaire method of data collection must go through several stages. A very important part of the questionnaire construction process is its piloting, known as **Pretesting**. Describe in detail the need of Pretesting. **[10]**
5. Describe the differences, with example, among Case Studies, Ethnography, Ethnomethodology. **[10]**
6. Describe the importances of Descriptive research and Historical research. **[5+5]**