

2016

MLISc

2nd Semester Examination

RESEARCH METHODOLOGY AND

QUANTITATIVE TECHNIQUES

PAPER—MLI-206

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks

*Candidates are required to give their answers in their
own words as far as practicable.*

Illustrate the answers wherever necessary.

Answer all questions.

1. Write short notes on the following :

2×5

(a) Applied research.

Or

Bradford's law of bibliographic scattering.

(Turn Over)

(b) Importance of sampling in research.

Or

2 Year Journal Impact Factor.

2. (a) Discuss what is ethnographic research. Explain why participatory observation method is used in ethnographic research. Briefly describe the different steps involved in writing a research report.

3+3+9

Or

- (b) Briefly explain Bookstein's generalised bibliometric distribution. Show how three fundamental bibliometric laws can be derived from Bookstein's formulae. Explain Price conjecture in this connection. What is special feature of Power model of growth of literature? Explain Briefly.

3+6+3+3

3. (a) (i) Find out mean and standard deviation of first 'n' natural numbers.
- (ii) Define mean deviation, variance and standard deviation of the variable 'x' for both ungrouped distribution and grouped distribution with frequency f.

(iii) Show that the variance of the variable 'x' is equal to the difference between average of the squares and the square of the average of x_i , where $i = 1, 2, \dots, n$.

(iv) Define co-variance between two variables x and y. 4+5+3+3

Or

(b) (i) Define Spearman's Rank Correlation co-efficient between two variables x and y.

(ii) The following data give number of visitors in a library and the corresponding number of books issued for 12 days. 3+12

<i>Serial No</i>	<i>No. of Visitors</i>	<i>No. of books issued</i>
1	10	7
2	15	10
3	24	15
4	32	27
5	40	33
6	50	42
7	47	40

	4	
8	55	50
9	60	55
10	65	60
11	70	65
12	75	70

Find out number of books issued on a day when number of visitors was 45.
