MASTER OF LIBRARY & INFORMATION SC. EXAMINATION, 2017
(2nd Semester)

Quantitative Techniques

Paper : ML - 06

Time : Two hours   Full Marks : 40

Answer *all* questions.

1A. (a) What are meant by Skewness and Variability ?   3

(b) How do you measure the degree of skewness ? Illustrate.   3

(c) Describe briefly three important ways of measuring variability.   6

(d) Show the respective positions of Mean, Median and Mode in a Positively skewed, Negatively skewed and Symmetrical distributions.   3

OR

1B. (a) The stock and daily issues of ten libraries in Kolkata are given below :

Stock (in thousands)	Daily issues
1.1	30
7.5	90
4.0	65
8.0	150
9.0	80
2.0	60
3.5	50
9.5	160
4.5	100
14.0	250

Find the product-moment correlation co-efficient for the above stock and daily issues. 7.5

(b) Librarian of a library wants to find a measure which he can use to fix the monthly wages of persons applying for a job in technical department. As an experimental project, he collected data about 7 persons from that department e.g., their length of service and their monthly income :

Years of service (X) :	11	7	9	5	8	6	10
Income (in '00 Rs.) (Y)	10	8	6	5	9	7	11

Using it what initial start would you recommend for a job after having served in similar capacity in another library for 13 years. 7.5

2A. Describe briefly the meaning and scope of the following terms : 3x5

(a) Librametry (b) Bibliometrics (c) Informetrics (d) Scientometrics (e) Webometrics

OR

2B. (a) Define the term 'Operations Research' (OR). 3

(b) Give a brief history about the development of the subject. 3

(c) Mention three OR techniques which could be applied to library environment. 3

(d) Discuss in brief the scientific methods involved in OR. 6

3. Write short notes on any *two* of the following : 5x2

(a) Parametric and Non-Parametric tests

(b) Citation analysis

(c) Scatter diagram

(d) Bradford Bibliograph

—— X ——