

Ex./MLDL/6.4/22/2017

MASTER OF LIBRARY & INFORMATION SCIENCE

(DIGITAL LIBRARY) EXAMINATION, 2017

(4th Semester)

Quantitative Methods

Paper : MLDL - 6.4

Time : Two hours

Full Marks : 40

Answer *all* questions.

1A. (a) Differentiate between (any **five**) 2x5

- (i) Bar chart and Histogram
- (ii) Cumulative frequency and Relative frequency
- (iii) Positive correlation and Negative correlation
- (iv) Parameter and Statistic
- (v) Null hypothesis and Alternative hypothesis
- (vi) Reference and Citation
- (vii) Standard deviation and Mean deviation
- (viii) Qualitative data and Quantitative data

(b) Make a brief note on 'Skewness and its measurement'. 5

OR

1B. (a) In a documentation centre a random sample of documents having frequencies of use and ages is as follows :

(Turn over)

(2)

| Age of Document in year(s) | Frequencies of Use in times/year |
|----------------------------|----------------------------------|
| 1 | 40 |
| 3 | 18 |
| 2 | 30 |
| 4 | 21 |
| 3 | 26 |
| 5 | 10 |
| 4 | 13 |
| 3 | 35 |

Find the Pearson's correlation coefficient for the above data. 7

(c) Calculate the regression equations for both of X on Y and Y on X from the data given below :

| | | | | | | | | | |
|---|---|---|----|----|----|----|----|----|----|
| X | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Y | 9 | 8 | 10 | 12 | 11 | 13 | 14 | 16 | 15 |

2A. Explain with suitable examples the three main empirical laws of bibliometrics. 15

OR

2B. (a) What is meant by Work Study? 3

(b) Discuss how the human factor can play a crucial role in the application of Work study. 9

(c) Mention the steps to be followed in performing Work measurement. 3

(3)

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

(a) Frequency distribution diagrams

(b) Webometry : meaning and its scope

(c) Operations Research : meaning and the process

(d) Stratified and Systemtic Random Samplings

— X —