

Indian Statistical Institute
Documentation Research and Training Centre
M.S. in Library and Information Science(2018-20)
Final exam for Semester-III
Paper-15: Informetrics and Scientometrics

Date: 15.11.2019

Time: 10 AM to 1 PM
Full Marks = 60

Section-A

Multiple choice questions

10x1=10

1. **Scientometrics portrait** is to:
 - a) Study the individual scientist's life and scientific productivity
 - b) Study the University's contribution for the development of research
 - c) Study the library websites in india
 - d) Study the library websites across the world

2. If you have published ten research papers, what is the maximum and minimum possible h-index you can receive from these publications?
 - a) 10 and 1
 - b) 10 and 0
 - c) 9 and 0
 - d) 9 and 1

- 3) Who was the first person to use the expression '**statistical bibliography**'
 - a) S. C. Bradford
 - b) Hulme
 - c) Lotka
 - d) Zipf

- 4) Who developed "**law of scattering**" for scientific journals?
 - a) S. R. Ranganathan
 - b) S. C. Bradford
 - c) George Kingsley Zipf
 - d) Alfred James Lotka

- 5) Which metric study would you prefer to measure growth of Internet resources?
 - a) Scientometrics
 - b) Informetrics
 - c) Webometrics
 - d) Bibliometrics

6) If you cite a particular paper twice in your work, how many time(s) will you include that paper in the reference section?

- a) 1
- b) 2
- c) 3
- d) 4

7) The Law used to measure the word frequency was given by _____

- a) S. R. Ranganathan
- b) S. C. Bradford
- c) George Kingsley Zipf
- d) Alfred James Lotka

8) The formula used to measure half-life of a document is

- a) $e^h = 0.5$
- b) $e^h = 1/0.5$
- c) $a^h = 0.5$
- d) $a^h = 1/0.5$

9) Which of the following indicators is used to measure the productivity of a journal?

- a) H-index
- b) g-index
- c) Impact Factor
- d) Scientometrics portrait

10) Who has given the term 'Co-citation'?

- a) Kessler
- b) Small
- c) Ranganathan
- d) Neelamegha

Section-B

Answer in one or two sentences

5x2=10

1. What is synchronous study?
2. Document I cites document A, B, C, D and document II cites C, D, E, and F. It is given that the two documents I and II are bibliographically coupled. What is the coupling strength?
3. What is Diachronous study?
4. What is Obsolescence?
5. Define Scientific Collaboration.

Section-C

Write short notes on the following topics (Any four)

4x5=20

1. Discuss the three measures of Scientific Collaboration.
2. Zipf's law.
3. 80/20 rule.
4. Impact Factor.
5. Citation Analysis.

Section-D

Discuss in details (Any two)

2x10=20

1. State and explain Bradford's law and Lotka's law.
2. Discuss the historical development of different metrics.
3. Discuss in detail about 'data citation'.

5+5 =10

10

10