Indian Statistical Institute
Documentation Research and Training Centre
MS(LIS) (2018-20)
Third Semester Final Examination
Paper: 15 Informetrics and Scientometrics

Date: 16/11/2018 **Max. Marks: 100**
Time: 3 hrs [10AM to 1PM]

I. Answer the following in one or two sentences. 10 X 1 = 10

1. What is self- citation?
2. Define immediacy Index.
3. Synchronous v/s Diachronus studies
4. Give two reasons for citing an article.
5. State the formula for Degree of Collaboration (DC)
6. Name two softwares of scientometrics.
7. What is altmetrics?
8. How to calculate Impact Factor of Journal?
9. What is Scientometrics portraits?
10. What is Hirsh Index?

II. Write short notes on any three of the following 3 X10= 30

1. Bradford's Law of Scattering
2. Lotka's inverse square law
3. pareto's 80/20 rule
4. zipf's law
5. Reasons for citing a document

III. Answer any three questions of the following 20 X 3 = 60

1. What is obsolescence of literature? Calculate following obsolescence factors (with help of table) with the given formula

    a) Annual Aging Factor (directly from graph) T(t) a^t
    b) Half life: $a^h=0.5$
    c) Utility Factor: U= 1/(1-a)
    d) Mean: $1/m = \log_e 1/a$
    e) Corrected obsolescence factor: U-m

Table 2: Citation Frequency for Economics

Journals				
Age (t)	Number of Citations	Cumulative Citations	%	Citations in tail T (t)
1	2	3	4	5
0	38	38	4.63	820
1	26	64	7.08	782
2	24	88	10.72	756
3	21	109	13.28	732
4	39	148	18.03	711
5	42	190	23.15	672
6	37	227	27.66	630
7	29	256	31.19	593
8	44	300	36.55	564
9	41	341	41.55	520
10	34	375	45.69	479
11	32	407	49.59	445
12	36	443	53.98	413
13	28	471	57.31	377
14	26	497	60.56	349
15	19	516	62.87	323
16	18	534	65.06	304
17	20	554	67.44	286
18	14	568	69.19	266
19	19	587	71.05	252
20	15	602	73.32	233
21	08	610	74.24	218
22	08	618	75.16	210
23	10	628	76.37	202
24	12	640	77.83	192
25	13	653	79.41	180
26	06	659	80.14	167
27	06	665	80.87	161
28	05	670	81.47	155
29	11	681	82.81	150
30	04	685	83.29	139
31	07	692	84.14	135
32	05	697	84.74	128
33	08	705	85.66	123
34	10	715	86.87	115
35	04	719	87.35	105
36	06	725	88.08	101
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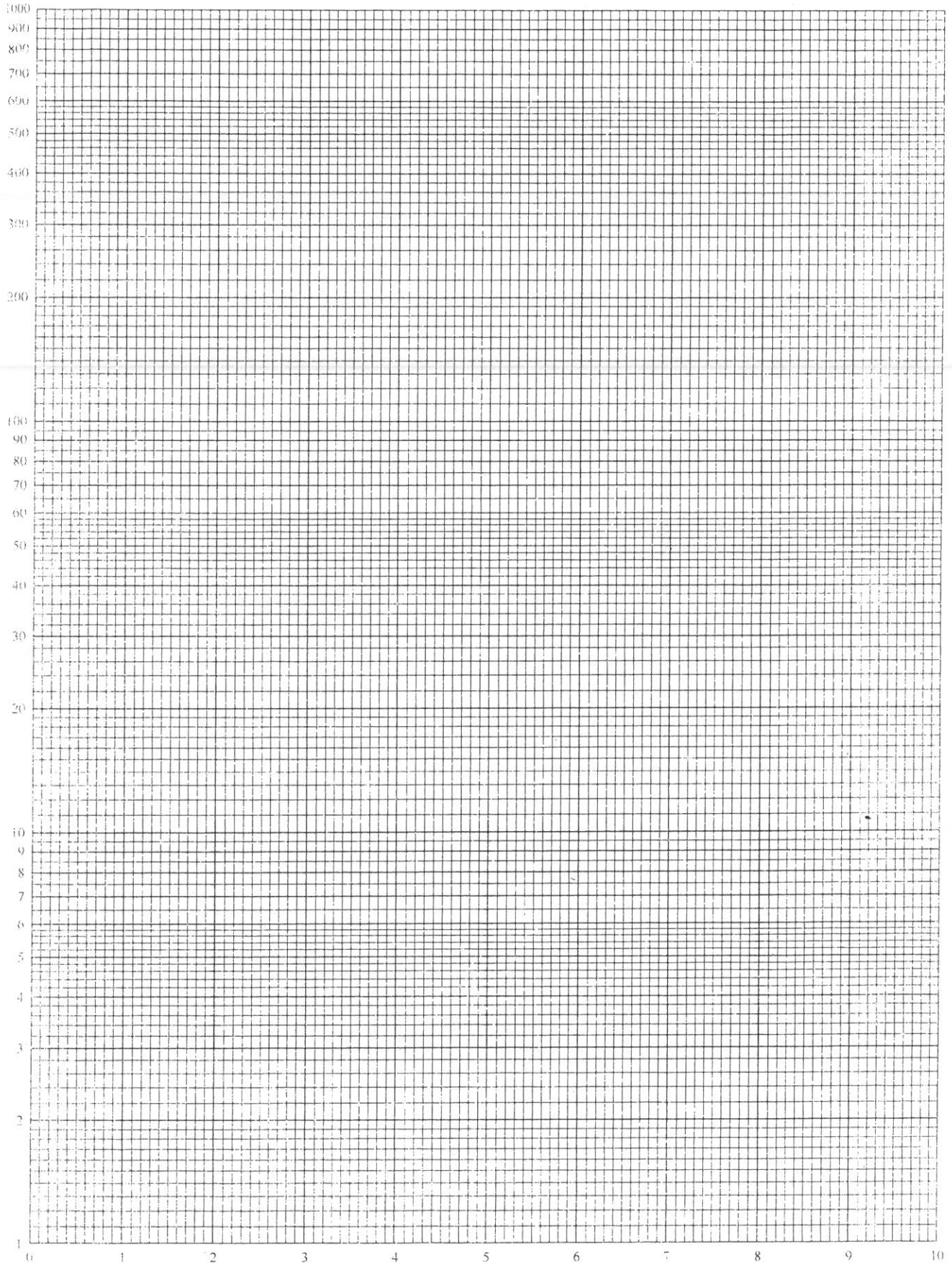
50	...	820	...	...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