2024
SRMUJ
3rd Semester Examination
M.A.
Library and Information Science
LIS-305
Knowledge Management & Research Data Management

Full Marks: 40 **Time: 2 Hours**

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

1. Answer any two of the following questions 5×2

I. Discuss the DIKW hierarchy with an appropriate diagram. 5

II. Differentiate between the following pair of concepts: 2.5 x2
   a) Structured Information and Unstructured information
   b) Null hypothesis and Alternative hypothesis.

III. Differentiate between the following pair of concepts: 2.5 x2
   a) Text mining and Data mining
   b) Unimodal and Bimodal

IV. What is information? What are the key characteristics of information? 2+3

2. Answer any three of the following questions 10×3

I. What is Mean? Calculate Mean from the following distribution: 2+8

No. of books issued per day	1-10	11-20	21-30	31-40	41-50	51-60	61-70
No. of such days in a year	14	6	10	15	7	5	3

II. **Question:** A library wants to determine whether the distribution of visitors across different days of the week follows an expected uniform pattern. The expected frequency is equal for all days. The actual number of visitors recorded over a week is:

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Observed Visitors	120	95	110	105	130	160	180
Expected Visitors	100	100	100	100	100	100	100

Task: Use the chi-square goodness-of-fit test to determine whether the actual visitor distribution significantly differs from the expected distribution. Use a 0.05 significance level. 10

III. Explain the difference between tacit and explicit knowledge with examples. What are the key components of a Knowledge Management System (KMS)? 4+6

IV. Define graphical representation of data. What are the different types of graphical representations of data? Describe each with examples. 2+8

V. What is the degree of freedom in a Chi-Square test, and how is it calculated? Differentiate between Parametric and Non-Parametric test. 4+6

P.Y.Q. 2024