INDIAN STATISTICAL INSTITUTE

BANGALORE CENTRE

Documentation Research and Training Centre

M. S. (Library and Information Science) 2021 -23

Second Year, Semester IV (Final)

Paper 17: Web Technology and Web-based Information Services

Date: 26th April 2023

Duration: 2 hours   **Full marks: 50**

Section I: Answer any 5 questions for a total of 30 Marks.

1. Explain the concept of web services and identify at least three key components of web services.
2. Explain the concept of OpenURL and its significance in the context of accessing appropriate copy of scholarly resources.
3. In the context of accessing licensed online resources, what are the different types of network authentication, and what are their respective advantages and disadvantages?
4. In what ways can COUNTER reports impact library practices and decision-making?
5. Describe some of the most common types of SQL joins and provide an example for each?
6. Explain the differences between primary keys and foreign keys in an RDBMS with an example.
7. Explain the features of Python Programming

Section II: Answer any 3 questions for a total of 15 marks.

1. What are the key differences between SOAP and REST protocols for web services?
2. What are local and global variables in programming, and how do they differ in terms of their scope and accessibility?
3. What is a single sign-on, and how does it work?

4. What is the difference between the GET and POST methods of communicating with a web server?

Section III: Answer any 2 questions for a total of 5 marks.

1. What will be the output of the following Python code:

   name = 'Hari'

   age =18

   print (name, ",you are",age,"now but",end="")

   print("You will be",age +1,"next year")

2. Create a database named "customer_info" and a table named "customers" with the following fields:

   id (integer)

   name (text)

   email (text)

   age (integer)

   Ensure that the id field is the primary key for the table and that it auto-increments with each new record added.

3. A student is researching the history of antibiotics on a publisher platform Alpha. From a list of search results the student opens three article abstracts and a video record. All four records are different, but two of the articles are from the same journal. What will be the counts for the following COUNTER metrics:

   Total_Investigations?

   Unique_Item_Investigations?

   Unique_Title_Investigations?

   Total_Requests?

   Unique_Item_Requests?

   Unique_Title_Requests?