**ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD**

**(Department Library & Information Sciences)**

**WARNING**

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE’S OWN WILL BE PENALIZED AS DEFINED IN “AIOU PLAGIARISM POLICY”.**

**Course: Library and Database Technology (9213) Semester: Spring, 2025**

**Level: BS-LIS**

## Please read the following instructions for writing your assignments. (AD, BS, B. Ed, MA/MSc, MEd) (ODL Mode).

1. All questions are compulsory and carry equal marks but within a question the marks are distributed according to its requirements.

2. Read the question carefully and then answer it according to the requirements of the questions.

3. Avoid irrelevant discussion/information and reproducing from books, study guide or allied material.

4. Handwritten scanned assignments are not acceptable.

5. Upload your typed (in Word or PDF format) assignments on or before the due date.

6. Your own analysis and synthesis will be appreciated.

7. Late assignments can’t be uploaded at LMS.

8. The students who attempt their assignments in Urdu/Arabic may upload a scanned copy of their handwritten assignments (in PDF format) on University LMS. The size of the file should not exceed 5MB.

Note 1: Use your own words while working on your assignment. In case of quoting any fact or statement from any source, always remember to provide full reference of the source according to “APA 6th ed. available at: <http://ijolis.aiou.edu.pk/?page_id=251>

Note 2: Students at the postgraduate level are expected to use multiple sources in addition to their course-allied material to solve these assignments.

Note 3: The study guide of this course and links to resources to solve these assignments are also available in downloads at AIOU’s LIS department website: [lis.aiou.edu.pk/](http://lis.aiou.edu.pk/)

**Total Marks: 100 Pass marks: 40**

**ASSIGNMENT No. 1**

**(Units 1–5)**

**Q.1** Write a comprehensive note on database-backed web pages. How do they function, and what are some relevant examples of such web pages? **(20)**

**Q.2** Discuss the basics of databases and their structure. Provide examples to illustrate how databases are organized and used. **(20)**

**Q.3** Explain the process of planning and setting up a database. What are the key steps involved, and which database administration tools are commonly used? Provide relevant examples. **(20)**

**Q.4** Discuss the basic concepts of programming with examples. How do these concepts apply to real-world software development? **(20)**

**Q.5** What is the program structure? Discuss the importance of program structure and the tools commonly used for programming and development.

**(20)**

**Total Marks: 100 Pass marks: 40**

**ASSIGNMENT No. 2**

**(Units 6–9)**

**Q.1** Discuss the process of programming an application, setting up the application, and implementing the data model. Provide relevant examples to illustrate each step. **(20)**

**Q.2** Write a note on database security-related techniques. How can security be ensured for databases, and what are some practical examples of these techniques? **(20)**

**Q.3** Explain how to create public interfaces for an application. Discuss the key considerations and provide examples to demonstrate the process. **(20)**

**Q.4** Discuss the following topics with examples: **(20)**

1. Providing links from authority entries
2. Placing your application in production
3. Maintaining and upgrading a database
4. Linking to full records

**Q.5** Write short notes on the following: **(20)**

1. Authority Table Maintenance
2. Database Maintenance Functions
3. Encryption and its importance
4. Full Keyword Searching and its applications