

Course Code	:	BCSL-021
Course Title	:	C Language Programming
Assignment Number	:	BCA(II)/L-021/Assignment/2024-25
Maximum Marks	:	50
Weightage	:	25%
Last date of Submission	:	31st October, 2024 (for July Session) 30th April, 2025 (for January Session)

This assignment has only one question. Answer the question. This question carries 40 marks. Rest 10 marks are for viva voce. You may use illustrations and diagrams to enhance the explanation. Please go through the guidelines regarding the assignments given in the programme guide for the format of presentation.

- Q1.** Design and implement a simple *Book-Organizing Module of a Library Management System* using C programming. **(40 Marks)**

Description:

Create a menu driven application that allows the user to manage the books in a library. The application should enable users to perform the following operations:

1. Add a new book record.
2. Display all book records.
3. Search a book by its ISBN.
4. Search a book by its Author.
5. Search a book by its Title.
6. Update a book record.
7. Delete a book record.
8. Save book records to a file.
9. Load book records from a file.
- 10.Exit.

Implement the following functions:

- **void addBook(Book books[], int *count)**
- **void displayBooks(const Book books[], int count)**
- **int searchBookByISBN(const Book books[], int count, const char *isbn)**
- **void updateBook(Book books[], int count, const char *isbn)**

- `void deleteBook(Book books[], int *count, const char *isbn)`
- `void saveToFile(const Book books[], int count, const char *filename)`
- `void loadFromFile(Book books[], int *count, const char *filename)`

Menu

- Implement a menu-driven system that allows the user to choose the operation they want to perform.

File Handling

- Use file handling to save the book records to a file and load them back when the program starts.

Note: You must execute the program and submit the program logic, sample input and output along with the necessary documentation for this practical question. Assumptions can be made wherever necessary.