

PGDLAN

Post Graduate Diploma
in
Library Automation and Networking
Assignments
For January 2024 and July 2024 Sessions



Faculty of Library and Information Science
School of Social Sciences
Indira Gandhi National Open University
Maidan Garhi New Delhi-110068

DATES FOR SUBMISSION OF ASSIGNMENTS

FOR January SESSION 30th September 2024

FOR July SESSION 31st March 2025

WHERE TO SUBMIT THE ASSIGNMENTS

**Kindly submit your assignments at the concerned Study
Centre/TLC within the due dates as mentioned above**

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INSTRUCTIONS FOR ASSIGNMENTS

As a part of PGDLAN Programme, each candidate has to do two Tutor Marked Assignments (TMAs), in all the seven courses except course MLIP – 008: Project. These TMAs comprise theoretical as well as practical assignments.

Assignments carry 20% weightage in the continuous evaluation process of a course. The term-end examinations carry 80% weightage.

The assignments will be evaluated by the Counsellors at the TLCs and the respective weightage of marks will be added to their percentage of marks obtained at the term-end examination. Each candidate will have to complete assignments in order to appear in the term-end examination. Candidates are, therefore, advised to take assignments seriously and submit them in time.

INSTRUCTIONS FOR TUTOR MARKED ASSIGNMENTS

- 1) The validity of the assignment is ONE YEAR. Those who take admission in January session have to attempt the assignments of January session only. If they fail to submit their assignments before the due date of the particular session, they are supposed to attempt the fresh set of assignments of subsequent January session (e.g. if a student of January 2024 session fails to submit her/his assignments till 30th September 2024, s/he will have to attempt the fresh assignments of January 2025 session). Similarly, those who take admission in July session have to attempt the assignments of July session only. If they fail to submit their assignments before the due date of the particular session, they are supposed to attempt the fresh set of assignments of subsequent July session (e.g. if a student of July 2024 session fails to submit her/his assignments till 31st March 2025, s/he will have to attempt the fresh assignments of July 2025 session).
- 2) Write your Enrolment Number, Name, Full Address and Date of Despatch at the top right-hand corner of the first page of your answer sheet.
- 3) Write the Programme Title, Course Title, Assignment Number, Code and Place of the Study Centre (TLC) on the left-hand corner of the first page of your answer sheet.

The top of the first page of your answer sheet for each assignment should be as follows:

Programme Title	Enrolment No.
Course Code & Title	Name
Assignment Number	Address
Study Centre/TLC (Code)
Study Centre/TLC.....
Place	Date

Note: Candidates are required to follow this format strictly otherwise the assignments will not be evaluated.

- 4) Your answer sheet should be complete in all respects. Make sure that you have answered all the questions in assignments before you submit them. Incomplete answer sheets will lead to poor marks.
- 5) As far as possible students are advised to give the relevant points from the course material and elaborate their answers and explanations in their own language instead of reproducing the language of the course materials.
- 6) You are advised not to copy from the study material while attempting the assignments. In case it is found that the assignments have been copied from study material, you will be awarded zero marks.
- 7) Avoid copying from the answer sheets of other students. If copying is noticed, the assignments of such students will be rejected.
- 8) Use only foolscap size paper for your answers, ordinary writing paper, neither too thick nor too thin, will do.
- 9) Leave 3" margin on the left and at least 4 lines in between each answer in an assignment. This will enable your Counsellor to write useful comments in appropriate places. Write question number for each answer.
- 10) The Coordinator of your Study Centre/TLC will return the evaluated assignments to you. This will also include a copy of assessment sheet containing global comments of the evaluator on your performance in the assignments. This will enable you to improve in your future assignments as well as in the term-end examinations.
- 11) The Tutor Marked Assignments should be sent to the Coordinator / Programme In-charge of the Study Centre/TLC allotted to you.

PRACTICAL ASSIGNMENTS

Assignment No. 2 of each course (TMA – P), which is for practical, is to be carried out at Study Centres/ TLCs. These have to be submitted/shown to the concerned counsellors.

MLI-001: Introduction to Computers
TMA – Theory

Coverage:

Course: Introduction to Computers

Blocks: 1 to 3

Units: 1 to 9

Course Code: MLI-001

Assignment Code: AST/TMA-T/Jan. & July 2024

Total Marks: 50

- I) *Answer any two of the following in not more than 1000 words each*
- 1) Describe memory hierarchy? Explain the types of memory hierarchy. (15)
 - 2) What are the technical features of Linux? Discuss its Kernel and its modules. (15)
 - 3) Discuss the impact of information society on information profession. (15)
- II) *Answer any four of the following in not more than 500 words each*
- 1) Describe the functions of system software. (5)
 - 2) Explain the types of charts in spread sheet. (5)
 - 3) Differentiate between fibre optic cables and microwave. (5)
 - 4) Discuss the input-output process of a computer. (5)
 - 5) What is secondary storage? Why is it needed? (5)
 - 6) Highlight the factors that determine the arrival of information society. (5)

MLIL-001: Introduction to Computers
TMA – Practical

Coverage:

Course: Introduction to Computers

Blocks: 1 to 3

Units: 1 to 9

Course Code: MLIL- 001

Assignment Code: AST/TMA–P/ Jan. & Jul.2024

Total Marks: 50

General Instructions for Practical Assignment:

- i) Documents, data, database, etc. to work on for the practical assignments will be provided by the Counsellor/Practical Supervisor in the Study/Tele Learning Centre.
 - ii) You are required to do the practical assignment in the Study/Tele Learning Centre. Evaluation of the assignment will be done by the Counsellor/Practical Supervisor on the spot.
 - iii) Make Screen Captures for all the answers and save them in one file. The Counsellor/Practical Supervisor will evaluate these screen captures and give marks accordingly.
 - iv) All questions are compulsory.
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- I) Perform the following activities: (10)
 - A) DOS:**
 - i) Display Directory Structure
 - ii) Clear Screen
 - iii) Display the content of file “mydosfile.bat”
 - B) WINDOWS:**
 - i) Install a new printer and make it shareable
 - ii) Display the calculator in scientific mode
 - iii) Display system information of your computer
 - iv) Move the task bar from the bottom of the
 - C) UNIX:**
 - i) Change the working directory to the root directory
 - ii) Display the name of all users logged in currently
 - iii) Use the PS command and try to kill any process owned by you
- 2) Prepare a MS Word document containing both text and table; also add hyperlinks, pictures, clipart and word-Art to it. (10)

- 3) Prepare a Power Point presentation consisting of 08 slides having text and animation. Apply different design templates, various colour schemes, charts and 9 slide transition effects for each slide. (10)
- 4) Create a file in MS-EXCEL containing names of 20 students with their marks in five subjects. Add a bar-chart to present this data. (10)
- 5) Prepare a database in MS-Access of twenty users for circulation section of a Library. (Details will be provided by the Counsellor/ Supervisor). (10)

MLI-002: Library Automation
TMA-Theory

Coverage:

Course: Introduction to Computers

Blocks: 1 to 4

Units: 1 to 14

Course Code: MLI- 002

Assignment Code: AST/TMA–T/ Jan. & Jul.2024

Total Marks: 50

I) Answer **any two** of the following in **not more than 1000 words** each.

- 1) Explain basic steps involved in planning of library automation. (15)
- 2) Define retrospective conversion. Discuss its need and historical background. (15)
- 3) Define CAS and SDI services. Explain characteristics of CAS and SDI services. (15)

II) Answer **any four** of the following in **not more than 500 words** each.

1. Describe features of CCF standard for cataloguing. (5)
2. Describe broad areas related to the implementation of automated acquisition systems.
3. Explain various functions of serials control system. (5)
4. What do you mean by search strategies? Describe various search strategies used in OPAC. (5)
5. Define library circulation systems. Explain various circulation systems used in the libraries. (5)
6. What do you mean by library automation? Describe various benefits of library automation. (5)

MLIL-002: Library Automation

TMA-Practical

Coverage
Course: Library Automation
Blocks: 1 to 4
Units : 1 to 14

Course Code: MLIL-002
Assignment Code: AST/TMA-P/Jan. & July 2024

Total Marks: 50

General Instructions for Practical Assignment:

- i) Documents, data, database, etc. to work on for the practical assignments will be provided by the Counsellor/Practical Supervisor in the Study/Tele Learning Centre.
 - ii) You are required to do the practical assignment in the Study/Tele Learning Centre. Evaluation of the assignment will be done by the Counsellor/Practical Supervisor on the spot.
 - iii) Make Screen Captures for all the answers and save them in one file. The Counsellor/ Practical Supervisor will evaluate these screen captures and give marks accordingly.
 - iv) All questions are compulsory.
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- 1) Write down the steps involved in (a) checking duplicate (b) preparing supply orders (c) merging acquisition record with OPAC with the help of a library software package. (10)
- 2) Add 10 publishers in the master database and generate a list thereof. (10)
- 3) Generate barcode labels after entering the data for books and theses (minimum 10 entries each). (10)
- 4) Create a database for 5 departmental budget heads and allocate Rs.1 lakh each for every head. Generate reports for the list of budget heads and the amount allocated. (10)
- 5) Create a database of 10 national and international periodicals. Generate reports for the list of national and international journals by subject. (10)

MLI-003: Information Systems
TMA-Theory

Coverage
Course: Information Systems
Blocks: 1 to 4
Units: 1 to 14

Course Code: MLI-003
Assignment Code: AST/TMA-T/ Jan. & July 2024

Total Marks: 50

- I) Answer **any two** of the following in not more than 1000 words each
- 1) Explain the different stages of System Development Life Cycle (SDLC) and describe the requirements for system development. (15)
 - 2) What is a digital library? Discuss the major issues and challenges involved in its development. (15)
 - 3) Define a Database Management System (DBMS). Describe the logical/ conceptual structure of a DBMS. (15)
- II) Answer **any four** of the following in not more than 500 words each.
- 1) Describe the criteria for evaluating the quality of an information retrieval system. (5)
 - 2) Describe various stages of Management Information System (MIS) development. (5)
 - 3) Describe the methods of knowledge representation in an Expert System. (5)
 - 4) Explain the concept of digital Libraries and their characteristics. (5)
 - 5) Discuss the strategies for optimization of Structured Query Formulation. (5)
 - 6) Describe the functions of various operators used for searching of databases. (5)

MLIL-003: Information Systems
TMA-Practical

Coverage
Course: Information Systems
Block 1 to 4
Units: 1 to 14

Course Code: MLIL-003
Assignment Code: AST/TMA-P/ Jan. & Jul.2024

Total Marks: 50

General Instructions for Practical Assignment:

- i) Documents, data, database, etc. to work on for the practical assignments will be provided by the Counsellor/Practical Supervisor in the Study/Tele Learning Centre.
 - ii) You are required to do the practical assignment in the Study/Tele Learning Centre. Evaluation of the assignment will be done by the Counsellor/Practical Supervisor on the spot.
 - iii) Make Screen Captures for all the answers and save them in one file. The Counsellor/ Practical Supervisor will evaluate these screen captures and give marks accordingly.
 - iv) Attempt the questions using SQL commands or MS – Access.
 - v) All questions are compulsory.
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- D) i) Draw the Entity Relationships (ER) diagram and also design the relational database schema for the following activity: (20)
- The IGNOU book club has members. The book club sells books to its members. The member places orders for books, which the book club fulfills. Each order contains one or more than one book. The books are written by author(s). The publisher publishes the book. An author can write more than one book and a book can have more than one author. A book is published by a publisher, but a publisher publishes many books. A member can place more than one order. He/She also can choose not to place an order. The book club sells many books.
- ii) Answer the following questions (by creating a database of 30 items providing information on your own) using the above schema by using any DBMS package. (15)
- a) What are the books published by author 'X'?
 - b) How many orders have been placed by a person 'Y'?
 - c) Total number of members in the IGNOU Book Club.

- II) Create a database “Library” of 20 items using the following labels (Put value according to your choice). (Use any DBMS package) (15)
- i) Documents (Acc.no., integer (5), Title, character (150), Authors, characters (100), publisher code, integer(3), pub-year, integer (4), pub-place, character (20), subject, character (30), keywords, character (200))
 - ii) Publisher (Publisher code, integer (3), Name, character(150), Address, character(100), City, character(30))

MLI-004: Networking and Internet Technology
TMA-Theory

Coverage

Course: 004 (Networking and Internet Technology)

Blocks: 1 to3

Units : 1to 14

Course Code: MLI-004

Assignment Code: AST/TMA–T/ Jan. & Jul.2024

Total Marks: 50

i) Answer any two of the following in not more than 1000 words each

1. Define Computer network. Discuss components of a computer network and important WAN technologies. (15)
2. Describe ISO-OSI Reference Model in detail with suitable diagram. (15)
3. What do you mean by Internet Protocol? Discuss various internet protocols in detail. (15)

ii) Answer any four of the following in not more than 500 words each

- 1) Write brief note on the network operating systems. (5)
- 2) Explain inter-library loan standards (5)
- 3) Describe areas of resource sharing. (5)
- 4) Explain criteria used for evaluation of websites by giving suitable examples. (5)
- 5) What do you mean by intranet? Discuss advantages of Intranet. (5)
- 6) Explain domain name system with examples. (5)

MLIL-004: Networking and Internet Technology

TMA-Practical

Coverage

Course: 004 (Networking and Internet Technology)

Blocks: 1 to3

Units: 1to 14

Course Code: MLIL-004

Assignment Code: AST/TMA-P/ Jan. & Jul.2024

Total Marks: 50

- 1) Use Google Chrome and search Five Titles on “Library Networking” in IndCat. Explain the types of searches available in IndCat. (10)
- 2) Create an e-Mail ID using Gmail, create one folder “Important Communication” and Two sub-folder in it (Internal and External) and organize your emails as “Internal” and “External” using folder options. (10)
- 3) Identify websites of the important Indian library networks (minimum 3) and highlight their common services. (10)
- 4) Evaluate the various types services offered by the **ERNET**. (10)
- 5) Search the term “Role of Libraries in National Education Policy 2020” using Boolean Operators (AND, OR, NOT) and compare the search results, also provide the screenshots of the respective search. (10)

**MLI-005: Internet
ResourcesTMA-Theory**

Coverage
Course: Internet Resources
Blocks: 1to2
Units: 1to 7

Course Code: MLI-005
Assignment Code: AST/TMA–T/ Jan. &Jul.2024

Total Marks: 50

- I) Answer *any two* of the following in not more than 1000 words
- 1) Define ‘Meta Resources’. Explain the types and the importance of ‘Meta Resources’. (15)
 - 2) Explain the different types of electronic resources. (15)
 - 3) Explain the steps involved in the process of evaluating Internet information resources. (15)
- II) Answer *any four* of the following in not more than 500 words each.
- 1) Describe the technical infrastructure required for a digital library. (5)
 - 2) What are the approaches to achieve interoperability in digital library implementation? (5)
 - 3) What are the different types of search tools and facilities available on the Internet? Describe their advantages and disadvantages. (5)
 - 4) What do you understand by Campus WideInformation System (CWIS)? Discuss some of the CWIS available on the net. (5)
 - 5) List the categories of reference sources in humanities available on the Internet. Give your answer with suitable examples under each type. (5)
 - 6) Discuss the ways of keeping upto date with new information resources on the Internet in the area of social sciences. (5)

**MLIL-005: Internet Resources
TMA-Practical**

Coverage
Course: Internet Resources
Blocks: 1to2
Units: 1to 7

Course Code: MLIL-005
Assignment Code: AST/TMA-P/ Jan. &Jul.2024

Total Marks: 50

General Instructions for Practical Assignment:

- i) Documents, data, database, etc. will be provided by the Counsellor/ Practical Supervisor in the Study/Tele Learning Centre to work on practical assignment.
 - ii) You are required to do the practical assignment in the Study/Tele Learning Centre.
 - iii) Make Screen Captures for all the answers and save them question wise in one file. Wherever necessary also save the output in MS Word. The Counsellor/ Practical Supervisor will evaluate these Screen Captures/ MS Word files and give marks accordingly.
 - iv) All questions are compulsory.
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1. Browse the electronic version of College & Research Libraries (C&RL) (25)

- List its different editions along with their URLs.
- Select Delhi edition. 18
- Browse the archives of its Delhi edition covering the last 15 days.
- Select one article each from the editorial/opinion page of the newspaper for the selected 15 days.
- Select any five editorial articles and try to download them in one MS word file
- Select any five images from the newspaper and save them in one MS word file
- Save the articles/images in one Folder titled 'HT Editorial Items'.

2. Browse the IGNOU website (25)

- Find out the names and numbers of schools/divisions/centers and units available in IGNOU.
- Find out the number of Regional and Study Centers of IGNOU.
- Find out the links to other websites and resources provided by the IGNOU website.
- Find out the URL of other State Open Universities in India.
- Browse IGNOU library home page.
- List the services given by the Library.
- Can you name some of the open sources listed in the library web page.

III) Use the search engine Google and search the web for “Raja Ram Mohan Roy Library Foundation, Kolkata”.

- Search the Directory of Public Libraries and find out the number of Public Libraries in Delhi.
- Open any five websites of such libraries.
- Try to find out the contact details of any such five libraries
- Make the selected websites as favourites or book mark them and save them in a folder named “Public Libraries in Delhi”.

MLI-006: Content Development
TMA-Theory

Coverage
Course: Content Development
Blocks: 1 to2
Units: 1 to10

Course Code: MLI-006
Assignment Code: AST/TMA-T/ Jan. & Jul.2024

Total Marks: 50

I) Answer any two of the following in not more than 1000 words each.

1. Discuss the need and importance of various Types of Documents in library and information centres. How they are different from multimedia. (15)
2. Define Indexing. Explain various types of indexing techniques. (15)
3. Define IPR. Describe in detail various types of intellectual properties. (15)

II) Answer any four of the following in not more than 500 words each.

1. Describe various characteristics of Multimedia Applications. (5)
2. Explain types of content analysis. (5)
3. Describe importance of classification for organisation of web Documents. (5)
4. Define data, information and knowledge. Describe various types of knowledge. (5)
5. Make a comparison among printed and electronic medium of information resources. (5)
6. Define Metadata, Describe Dublin Core Metadata Initiative (DCMI). (5)

**MLIL-006: Content Development
TMA-Practical**

Coverage
Course: Content Development

Course Code: MLIL-006
Assignment Code: AST/TMA-P/ Jan. & Jul.2024

Blocks: 1 to2
Units: 1 to10

Total Marks: 50

General Instructions for Practical Assignment:

- i) Documents, data, database, etc. to work on for the practical assignments will be provided by the Counsellor/Practical Supervisor in the Study/Tele Learning Centre.
- ii) You are required to do the practical assignment in the Study/Tele Learning Centre. Evaluation of the assignment will be done by the Counsellor/Practical Supervisor on the spot.
- iii) Make Screen Captures for all the answers and save them in one file. The Counsellor/ Practical Supervisor will evaluate these screen captures and give marks accordingly.
- iv) All questions are compulsory.

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- 1 Analyse the content of the five Indian Institute of Technology (IIT) libraries website using qualitative (relational) analysis. (10)
 - 2 Identify types of information sources for a university library. Assign Dublin Core metadata elements to at-least five entries under each category. (10)
 - 3 Import any ten titles from the Library of Congress on-line catalogue using Z39.50 protocol. Prepare bibliographic record for any five different kinds of information sources using MARC structure. (15)
 - 4 Develop an html web page for IGBOU LIS Programmes (Phd, MLIS, BLIS, PGDLAN, CLIS) (15) indicating following information.
 - a) Programme overview
 - b) Duration
 - c) Minimum and Maximum
 - d) Course Fee:
 - e) Age limit
 - f) Eligibility
 - g) Examination and Evaluation

**MLI-007:
ProgrammingTMA-
Theory**

Coverage
Course: Programming
Blocks: 1
Units: 1to 3

Course Code: MLI-007
Assignment Code: AST/TMA–T/ Jan. & Jul.2024

Total Marks: 50

I) Answer any two of the following in not more than 1000 words each.

- 1) Draw a flow chart to show the issue of books and non- issue of reference books in a library. (15)
- 2) What is a pseudocode? Write a pseudocode for accepting three numbers and find the maximum. (15)
- 3) What is a system? Describe the characteristics of systems.

II) Answer any four of the following in not more than 500 words each.

- 1) A library is an open system. Explain. (5)
- 2) What is the role of library professionals in system analysis? (5)
- 3) Write an algorithm which accepts 5 numbers and sort them in ascending order. (5)
- 4) Explain the different strategies available for problem solving. (5)
- 5) Define 'Data Flow Diagram'. Explain the different elements of DFD. (5)
- 6) Explain the different symbols used in a flow chart with examples. (5)

**MLIL-007:
Programming TMA-
Practical**

Coverage
Course: Programming
Blocks: 2 to 4
Units: 4 to 24

Course Code: MLIL-007
Assignment Code: AST/TMA-P/ Jan. & Jul.2024

Total Marks: 50

General Instructions for Practical Assignment:

- i) Compilers to work on for the practical assignment will be provided by the counsellor/practical supervisor in the Study/TeleLearning.
- ii) You are required to do the practical assignment in the Study/Tele Learning Centre.
Evaluation of the assignment will be done by the Counsellor/Practical Supervisor on the spot.
- iii) Attempt either Group A (C++) or Group B (Visual Basic) or Group C (Java).
- iv) For Each C++ and Java program, students are required to design a class construct.
- v) All questions are compulsory.

Group A: (C++)

- 1) Write a program to calculate the fine to be charged on books returned late in a library. (10)
- 2) Write a program using if- then loop for issuing general books and not reference books in a library. (10)
- 3) Write a program to create a student class which should have the following fields: Student Name Student Age Fee Total Marks Create 5 objects of his/her class and test the program, and
 - i) Print the contents of all objects. (10)
 - ii) Sort the student objects in ascending order of their total marks. (5)

- 5) Write a program to implement and test a recursive function for a palindrome. A palindrome is an alphanumeric string such that the string reads the same in the forward and backward direction. (10)
- 6) Write a program that takes an input of three integers from the keyboard and outputs the sum, average, and product of the numbers.

OR

Group B: (Visual Basic)

- 1) Write and implement an event procedure to design a simple calculator, where the user types a number into text box and the program displays the square of this number in another textbox. (10)
- 2) Write a program to convert temperature in Celsius into Kelvin, where $\text{Kelvin} = 273 + \text{Celsius}$. (10)
- 3) Write a program that prints a table with two columns and four rows. The first column consists of list of countries and the second column consists of list of currencies that are related to countries in first, but not corresponding exactly. When the user clicks on "Submit" button, the program should rearrange the data in two columns such that the country and respective currency is placed in corresponding columns. Use appropriate VB elements. Make suggestions, if any (10)
- 4) Create a form with a picture box. Find 2 interesting picture. Use a timer control to cycle the pictures every 2 seconds. (10)
- 5) Create a form having a text box which takes a number as input and in other text box it outputs reverse of the number after a button is pressed. (10)

OR

Group C: (Java)

- 1) Write a program to sort a given array of accession numbers in ascending order (You may select about 15 accession numbers of 5 digits at random). (10)
- 2) Write a small program that accepts to represent the following pattern: (10)


```

1
1 2
1 2 3
1 2 3 4
      
```
- 3) Write a program to find the smallest element in an array.
- 4) Show two ways to concatenate the following two strings together to get the string "Good Morning" (10)

- i) Strings 1= "Good"
- ii) Strings 2= "Morning"

5) Write a program to find the area of a circle

(10)