

PGDLAN

**Post Graduate Diploma
in
Library Automation and Networking**

**Assignments
For January 2015 and July 2015 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 2015

FOR JULY SESSION

31st March 2016

WHERE TO SUBMIT THE ASSIGNMENTS

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

CONTENTS

	Page No.
Instructions for Assignments	4
MLI-001 : Introduction to Computers	6
MLI-002 : Library Automation	8
MLI-003 : Information Systems	10
MLI-004 : Networking and Internet Technology	12
MLI-005 : Internet Resources	14
MLI-006 : Content Development	17
MLI-007 : Programming	18
 Part – A : C++	
 Part – B : Visual Basic	
 Part – C : Java	

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 2013 session fails to submit his/her assignments till 30th September 2013, he/she will have to attempt the fresh assignments of January 2014 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 2013 session fails to submit his/her assignments till 31st March 2014, he/she will have to attempt the fresh assignments of July 2015 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 Code: MLI- 001

Course: Introduction to Computers **Assignment Code: AST/TMA–T/Jan. &Jul.2015**

Blocks: 1 to 3

Units: 1 to 9

Total Marks: 50

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

- 1) Explain why Linux is becoming a preferred operating system? (15)
- 2) Discuss the different uses of computers in libraries. (15)
- 3) Describe the concept of information society. Discuss the factors that led to the arrival of 'Information Society'. (15)

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

- 1) Explain why client-server model is more used in operating systems? (5)
- 2) What do you understand by memory hierarchy? (5)
- 3) Explain why library automation is essential in present day context. (5)
- 4) Describe the importance of barcode as an input device in libraries. (5)
- 5) Differentiate between multitasking and multiuser operating system. (5)
- 6) Discuss the latest trends in the area of wireless communication. (5)

MLIL-001: Introduction to Computers

TMA – Practical

Coverage:

Course Code: MLIL- 001

Course: Introduction to Computers **Assignment Code: AST/TMA–P/ Jan. &Jul.2015**

Blocks: 1 to 3

Units: 1 to 9

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.

1) Perform the following activities: (10)

A) WINDOWS:

- (i) Change the appearance of the icons on desktop
- (ii) Change the colour scheme of your desktop
- (iii) Create a folder on the desktop named “PGDLAN” and copy a file in this folder
- (iv) Empty the Recycle Bin
- (v) Auto-hide the task bar

B) UNIX:

- (i) Change the working directory to the root directory
 - (ii) Create a new directory LAB in your home directory
 - (iii) Move the directory LAB to another directory
 - (iv) List the names of files in your home directory
 - (v) Identify the name of your terminal
- 1) Prepare a MS Word document containing both text and table, also use bullets and numbering in text. Copy and Paste any picture to this document. (10)
 - 2) Prepare a Power Point presentation consisting of 06 slides having text, clip art and word art. Apply different design templates and transition sounds for each slide. (10)
 - 3) Create a file in MS-EXCEL containing enrolment data of students in PGDLAN Program from 2010-2014. Add a chart to present this data. (10)
 - 4) Prepare a database in MS-Access of twenty books in a Library. (Details will be provided by the Counsellor/ Supervisor). (10)

MLI-002: Library Automation
TMA-Theory

Coverage
Course: Library Automation
2015
Blocks: 1 to 4
Units: 1 to 14

Course Code: MLI-002
Assignment Code: AST/TMA-T/Jan. & July

Total Marks: 50

- D) Answer *any two* questions in *not more than 1000 words each*.
- 1) Define the term 'library automation'. Discuss its need and purpose. (15)
 - 2) What is retrospective conversion? Discuss the various methods of retrospective conversion. (15)
 - 3) Discuss the parameters for evaluating a library automation software package. (15)
- II) Answer *any four* of the following in *not more than 500 words each*.
- 1) Describe the reports that can be generated in an automated acquisition system. (5)
 - 2) Describe the features to be included in an automated serial control system. (5)
 - 3) Identify the components of SDI system. (5)
 - 4) Discuss the different search operators with examples. (5)
 - 5) Describe the methods of electronic document delivery service. (5)
 - 6) Explain the structure of MARC 21. (5)

MLI-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 2015

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.**

-
- 1) Design an input sheet for a book using CCF/MARC-21. (15)
 - 2) Prepare a record of 10 books in the above designed input sheet. (10)
 - 3) Show by examples, the steps involved in (a) checking duplicate records (b) preparing supply orders and (c) merging acquisition records with OPAC. (15)
 - 4) Show by examples, the steps involved in (a) issuing a book to members (b) reserving a book and (c) generating a report of all books charged during a period of one week. (10)

NB: The questions are based on the software package SOUL, which will be made available to you at the Study/Tele Learning Center.

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. & Jul. 2015

Total Marks: 50

- I) Answer *any two* of the following in *not more than 1000 words each*.
- 1) Define the concept 'information retrieval system'. Describe the models of information retrieval. (15)
 - 2) Discuss the structure, design and development of a Management Information System. (15)
 - 3) Define Expert Systems. Describe in detail their structure and major components. (15)
- II) Answer **any four** of the following in not more than 500 words each.
- 1) Describe the role of a system analyst. (5)
 - 2) Discuss the major issues involved in developing digital libraries. (5)
 - 3) Briefly describe Boolean search. (5)
 - 4) Explain the steps involved in system design process. (5)
 - 5) Explain the concept of key in date management. (5)
 - 6) Describe the basis of artificial intelligence and the key areas of its application.(5)

**MLI-003: Information Systems
TMA-Practical**

Coverage

Course: Information Systems

Blocks: 1 to 4

Units: 1 to 14

Course Code: MLIL-003

Assignment Code: AST/TMA-P/ Jan. & Jul 2015

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.

-
- 1) Design a blank database “LIBRARY” using MS-ACCESS and add to it the following tables: (15)

(i) JOURNALS

(ii) VENDORS

Add the following fields in the ‘JOURNAL table in the ‘Design View’

(a) JOURNAL_ID Auto Number

(b) JOURNAL_TITLE Text 255 Null Not Allowed

(c) JOURNAL_SPONSOR Text 255 Null Not Allowed

Now add 15 records in it using Data Sheet View.

- 2) Add the following fields in the Table ‘SUBJECT’ – SUBJECT_ID, SUBJECT_NAME, AUTHOR_ID. Add 15 records in the table. (15)
- 3) Make a relationship of JOURNAL_ID field in VENDORS table to the JOURNALS table using ‘Look Up Wizard’ in Design View. (5)
- 4) Design E-R diagram for the database ‘DOCUMENTS’ to show relationship among the tables. (5)
- 5) Add 15 records in VENDORS table in Data Sheet View. (10)

MLI-004: Networking and Internet Technology
TMA-Theory

Coverage

Course Code: MLI-004

**Course: Networking and Internet
Technology**

Assignment Code: AST/TMA- T/ Jan. & Jul.2015

Blocks: 1 to 3

Total Marks: 50

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

- 1) Define Internet Protocol. Describe various communication protocols used for internet. (15)
- 2) What is Digital Subscriber Line (DSL)? How does it work? What are its advantages over simple dial-up connection? (15)
- 3) Describe activities and services of a resource sharing network. (15)

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

- 1) Describe the seven— layered OSI network model. (5)
- 2) Describe major library and information services offered through the DELNET. (5)
- 3) What is World Wide Web (WWW)? How does it work? (5)
- 4) Explain the need for internet security. (5)
- 5) Explain the concept of Virtual Private Network. (5)
- 6) Discuss the advantages of networking of libraries and information centres. (5)

MLI-004: Networking and Internet Technology
TMA-Practical

Coverage

Course Code: MLIL-004

**Course: Networking and Internet
Technology**

Assignment Code: AST/TMA-P/ Jan. & Jul. 2015

Blocks: 1 to 3

Units: 1 to 13

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.

-
1.
 - (a) Pick up any created folder on your desktop and sort out all the files therein by date of creation. (5)
 - (b) Identify the protocols used/installed in your machine for Local Area Network. (5)
 - (c) Configure your Browser to open yahoo search engine as a default website. (5)
 - (d) Find out the number of Ports available in the hub in the network system of your lab. (5)
 2.
 - (a) Create E-mail addresses in the names of persons of your choice in Gmail and yahoo respectively. (Give passwords on your own). (5)
 - (b) Type the 'general instructions' printed in your question paper and save in My Documents as 'Ginst'.
 - (c) Send 'Ginst' from Gmail to Yahoo mail as an attachment. (5)
 3.
 - (a) Find a list of news groups and join any one of them (free only). (5)
 - (b) Locate the venue and theme of IFLA conference 2015. (5)

MLI-005: Internet Resources
TMA-Theory

Coverage
Course: Internet Resources
Blocks: 1 to 2
Units: 1 to 7

Course Code: MLI-005
Assignment Code: AST/TMA-T/Jan.&Jul.2015

Total Marks: 50

- I) Answer *any two* of the following in *not more than 1000 words each*.
- 1) What do you understand by meta resources and other variable terms such as 'portals', 'vortals' and 'hortals'? Describe the methodology of building up meta resources. (15)
 - 2) What are the different categories of information resources available in the area of "science" on the Internet? Describe any one category with the help of suitable examples. (15)
 - 3) How does a digital library differ from a traditional library? Discuss the technical infrastructure needed to build a digital library. (15)
- II) Answer *any four* of the following in *not more than 500 words each*.
- 1) Describe the characteristics of meta resources. (5)
 - 2) Discuss any two important Digital Library Projects. (5)
 - 3) Elaborate on the points which need to be considered while carrying out content analysis for evaluating Internet information resources. (5)
 - 4) List the various types of electronic reference sources available on the Internet. Describe any one of them in detail. (5)
 - 5) Explain the steps involved in searching information on the Internet on the topic "Political Party System in India". (5)
 - 6) What do you understand by the term "subject gateways"? Explain the features of 'Humbul' gateway in the area of humanities. (5)

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

Coverage

Course: Internet Resources

Blocks: 1 to 2

Units: 1 to 7

Course Code: MLIL-005

Assignment Code: AST/TMA-P/Jan.&Jul.2015

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. The Counsellor/Practical Supervisor will evaluate these Screen Captures and give marks accordingly.
 - iv) All questions are compulsory.
-

I)

- Find out the total number of open access journals (OAJ) available in the subject of Library and Information Science (LIS) on the Internet.
- Select any five LIS journal titles of your choice which are freely available in full-text on the Internet.
- Write their URLs and show their components.
- Find out the name of their publishers, country of publication, date of publication, ISSNs and the language of the journals.
- Find out when they have started publishing as open source journals.
- Show the TOCs of one issue (current) each of all the five journals.
- Save any five full-text articles taking one from each of the five journals in MS word/PDF format in a folder named "LIS -OAJ" .
- Name any two Indian open access journals in the area of LIS. (30)

II)

- Open the website of the SCOPUS database and write down its URL and analyse its components.
- Mention the features of the database.
- Find out the coverage of the database with reference to records, titles and publishers.
- What are the subjects covered under this database?
- Find out the book coverage of the database. (10)

III)

- Visit the website of the Indira Gandhi National Open University (IGNOU) and write down its URL.
- Find out its contact and other details.
- Find out the links to the websites of Regional Centres of the university.
- Browse the IGNOU Library web page and find out the services provided by the library.
- List some of the publications of the University. (10)

**MLI-006: Content Development
TMA-Theory**

Coverage

Course: Library Automation

Blocks: 1 to 4

Units: 1 to 14

Course Code: MLI-006

Assignment Code: AST/TMA-T/Jan & July2015

Total Marks: 50

- I) Answer *any two* of the following in *not more than 1000 words each*.
- 1) Explain the advantages of multimedia applications and describe the different types of text file formats of multimedia content. (15)
 - 2) "The chief criterion in developing and making available content is to make it useful and available to target audience or the end users." Discuss this statement with reference to content development. (15)
 - 3) What do you understand by Copyright? Discuss the issues related to it. (15)
- II) Answer *any four* of the following in *not more than 500 words each*.
- 1) Enumerate different types of content analysis and describe the steps of analysis of any one type. (5)
 - 2) Explain the need for classifying web resources and the advantages of using a classification scheme. (5)
 - 3) Describe the factors to be considered in designing a Knowledge Management system and the challenges of KM in its implementation. (5)
 - 4) What is Z39.50? Discuss the applications of this standard to libraries (5)
 - 5) What is Web server? Describe the work flow of Web server with the help of a diagram. (5)
 - 6) Explain the concept and usefulness of subject gateways. (5)

MLI-006: Content Development
TMA – Practical

Coverage

Course: Library Automation

Blocks: 1 to 4

Units: 1 to 14

Course Code: MLIL-006

Assignment Code: AST/TMA-P/Jan. & July 2015

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.
-

Based on the information provided below, design and create a website for the National Institute of Science and Technology Library with the facilities for navigation to at least four web pages on various facilities and services. You may use various HTML features like tables, frames, lists, etc.

The National Institute for Science and Information Technology was established in 2004 at Juhu Tara Road, Mumbai-400020 for offering varieties of courses such as Bachelors and Masters degrees in science, in IT and postgraduate Diploma in ICT and also for promoting research on various areas of science and ICT. The information services provided by the Institute are (a) Alerting service, (b) Bibliographic Databases, (c) Electronic Journal.

The alerting service is in the form of a Newsletter (weekly) published since 2001. This includes new Internet resources. The back issues of the Newsletter is maintained and can be accessed. The Bibliographic databases include CA, compondex and J-Gate. The electronic journals include Elsevier science, Academic Press Journals and Emerald Full Text Journals.

The other services provided by the institute are open source and lending. The open source is available by subject. Each subject provides information on resource title URL, subject resource type and description of the source. The service is being provided since 2002 and archived. Each article has an abstract with a link to the original source. The binding service is open to all Books and bound journals are issued for 3 weeks.

The organizational structure of the Institute comprises the Director, two deputy Directors, Deans of Science and ICT, Registrar and Librarian.

**MLI-007: Programming
TMA-Theory**

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

Course Code: MLI-007
Assignment Code: AST/TMA-T/ Jan. & Jul. 2015

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. (15)
- 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)

MLI-007: Programming
TMA-P
Assignment No. 7

Coverage
Course: 007 (Programming)
Blocks: 2 to 4
Units: 4 to 24

Course Code: MLIL-007
Assignment Code: AST-7/TMA-P/ Jan. & Jul.2015

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/Tele Learning.
- 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 that reads a string from the user, then check whether the string is Palindrome or Not. (5)
- 2) Write a program to take an input a number and check whether the number is prime or not. (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 (10)
 - i) Print the contents of all objects (5)
 - ii) Sort the student objects in ascending order of their total marks
- 4) Write a program that accepts a string from the user and then reverse it and print it. (10)
- 5) Write a program which accepts sequence of numbers from the user and then arrange all those numbers in descending order. (10)

OR
Group B (Visual Basic)

- 1) Write a program to write an Event Procedure to design a Simple Calculator where user type 2 numbers into two different text boxes and the program displays multiplication, addition and subtraction in different text boxes. (10)
- 2) Create a form with a picture box, use a timer control to cycle 10 pictures every second. (10)
- 3) Create a form having 3 text boxes, the user enters 2 strings in first 2 text boxes and after a button is pressed the concatenated string is shown in the third text box. (10)
- 4) Create a form, which takes input base, height of a Cylinder and outputs its Volumes in a text box. (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 small program that accepts to represent the following pattern: (10)

```
1
1 2
1 2 3
1 2 3 4
```
- 2) Write a Java program to find the average of 3 numbers. (10)
- 3) Write a program to count the number of characters in a string. (10)
- 4) Write a Java program to concatenate two strings. (10)
- 5) Write a program to accept 10 students name from keyboard in an array and sort them in alphabetical order. (10)