

PGDLAN

Post Graduate Diploma
in
Library Automation and Networking
Assignments
For January 2021 and July 2021 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 2021

FOR July SESSION 31st March 2022

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	7
MLI-002 : Library Automation	10
MLI-003 : Information Systems	12
MLI-004 : Networking and Internet Technology	14
MLI-005 : Internet Resources	16
MLI-006 : Content Development	19
MLI-007 : Programming	22
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 2021 session fails to submit her/his assignments till 30th September 2021, s/he will have to attempt the fresh assignments of January 2022 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 2021 session fails to submit her/his assignments till 31st March 2022, s/he will have to attempt the fresh assignments of July 2022 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 2021

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 fiber optic cables and microwave. (5)
- 4) Why do we need secondary storage? (5)
- 5) Discuss the input-output process of a computer. (5)
- 6) Highlight the factors that determine the arrival of information society. (5)

MLIL-001: Introduction to Computers
TMA – Practical

Coverage:

Course Code: MLIL- 001

Course: Introduction to Computers

Assignment Code: AST/TMA–P/ Jan. & Jul.2021

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) 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

- 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 Code: MLI- 002**
Course: Introduction to Computers **Assignment Code: AST/TMA–T/ Jan. & Jul.2021**
Blocks: 1 to 4
Units: 1 to 14

Total Marks: 50

- I) Answer *any two* questions in *not more than 1000 words each*.
- 1) “Library Automation reduces cost and increases efficiency in providing better library and information services and products”. Explain. (15)
 - 2) Explain the process of searching a bibliographic database with suitable examples. (15)
 - 3) Define Electronic Document Delivery Service (EDDS). Discuss the steps involved in it. (15)
- II) Answer *any four* of the following in *not more than 500 words each*.
- 1) Discuss in brief the features of a serial control system. (5)
 - 2) Describe the steps involved in providing reference service in an automated environment. (5)
 - 3) Enumerate the components of a SDI system and explain any one. (5)
 - 4) Explain the most commonly used CCF fields in a bibliographic database. (5)
 - 5) Discuss the importance of feasibility studies in library automation (5)
 - 6) Discuss the major issues involved in developing digital libraries. (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 2021

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) | reate a database of ten records of books requested by users for acquisition. Approve five of these and place order for these. Receive and accession. | C
(15) |
| 2) | atalogue the five records and search for them by subject. Generate spine labels for the records catalogued. | C
(10) |
| 3) | reate database for 10 New Members and issue one book each to twoof them and reserve one book each for another two of them. | C
(15) |
| 4) | reate a database of five records of serials requested by users for acquisition. Approve two of these and place order for these. Receive and catalogue. | C
(10) |

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

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 2021

Total Marks: 50

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

- | | | |
|------|---|------|
| I) | | D |
| | Define Expert Systems. Describe in detail their structure and major components. | (15) |
| II) | | D |
| | Distinguish between file organisation and access methods. Describe different file access methods. | (15) |
| III) | | W |
| | What is Database Management System (DBMS)? Discuss the functions and components of a DBMS. | (15) |

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

- | | | |
|------|--|-----|
| I) | | D |
| | Discuss the major issues involved in developing digital libraries. | (5) |
| II) | | W |
| | What is artificial intelligence? Discuss its areas of application. | (5) |
| III) | | D |
| | Describe briefly different techniques of Boolean search. | (5) |
| IV) | | E |
| | Explain the steps involved in system design process. | (5) |

V)		B
	riefly explain the criteria for evaluation of information retrieval systems	(5)
VI)		D
	efine SQL. Describe the need of Structured Query Formulation	(5)

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

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

Course Code: MLIL-003
Assignment Code: AST/TMA-P/ Jan. & Jul.2021

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) Create a database 'LIBRARY' with the following tables:

- (i) EMPLOYEES
- (ii) DESIGNATIONS

Add the following fields in the 'EMPLOYEES':

EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_AGE, EMPLOYEE_ADDRESS,
DESIGNATION_NAME Add 15 records in the table 'EMPLOYEES'. (15)

- 2) Add the following fields in the Table 'DESIGNATIONS' DESIGNATION_ID,
DESIGNATION_NAME Add 15 records in the table. (15)
- 3) Display information about all employees in the above table using Form or SQL Query. (5)
- 4) Design E-R diagram for the database 'LIBRARY' to show relationship among tables. (5)
- 5) Display information about all the employees in the above table using SQL Query. (10)

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.2021

Total Marks: 50

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

- 1) Identify the components of computer network and describe their functions. (15)
- 2) Make a comparative study of Internet, Intranet and Extranet. (15)
- 3) Describe the salient features of Resource Sharing Guidelines formulated by IFLA. (15)

II) Answer any four questions in not more than 500 words each.

- 1) Describe different types of Network Topology. (5)

- 2) What is ISDN? Describe its various devices. (5)
- 3) What is NOS? Describe its functions. (5)
- 4) Discuss how the information technology can be useful for inter library loan services. (5)
- 5) Discuss the methods of electronic document delivery service. (5)
- 6) Describe various communication network protocols. (5)

MLIL-004: Networking and Internet Technology
TMA-Practical

Coverage

Course: 004 (Networking and Internet Technology) **Course Code: MLIL-004**
Assignment Code: AST/TMA-P/ Jan. & Jul.2021

Blocks: 1 to3

Units: 1to 14

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) Enumerate the steps involved in setting-up network neighbourhood to share printers and files. (10)
- 2) Identify the union catalogue of any two libraries and information networks from Internet and explore their scope. (10)

- 3) Identify important library websites (minimum 5 Indian) and highlight their common services. (10)
- 4) Compare the features of websites as identified at Question no. 3. (10)
- 5) a) Create e-mail id of your own in Hotmail and Yahoo. (4)
- b) Generate a small paragraph in Word and send it as an attachment from Hotmail address to yahoo address. (6)

**MLI-005: Internet Resources
TMA-Theory**

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

Course Code: MLI-005
Assignment Code: AST/TMA-T/ Jan. &Jul.2021

Total Marks: 50

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

- 1) What do you understand by the term “meta resources”? Explain the methodology for building up meta resources. (15)
- 2) Define Internet information resources. Enlist the different categories of such resources. Briefly describe any one category with the help of examples. (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 Wide Information 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 up to 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.2021

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.
-

- D) Browse the electronic version of the Hindustan Times newspaper.
 - List its different editions along with their URLs.
 - Select Delhi edition.

- 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’. (25)

II) Browse the IGNOU website

- 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. (15)

III)

- the search engine Google and search the web for “Raja Ram Mohan Roy Library Foundation, Kolkata”. Use
- Search the Directory of Public Libraries and find out the number of Public Libraries in Delhi. Sear
- Open any five websites of such libraries. Ope
- Try to find out the contact details of any such five libraries Try
- Make the selected websites as favourites or book mark them and save them in a folder named “Public Libraries in Delhi”. Mak (10)

**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.2021

Total Marks: 50

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

- | | | |
|----|--|--------------|
| 1) | Describe the characteristic features of different types of Web documents and the parameters by which the Web documents can be evaluated. | Desc
(15) |
| 2) | What are the aspects to be kept in view in content development of electronic and internet resources? Discuss the parameters and guidelines for context setting in this regard. | Wha
(15) |
| 3) | What is IPR? Explain its need and importance in the present Internet era. | Wha
(15) |

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

- | | | |
|----|--|-----|
| 1) | Describe the basics of Z39.50. | (5) |
| 2) | Discuss the contribution of Electronic Text Encoding and Interchange (TEI) in content development. | (5) |
| 3) | Discuss 'Internet as an information system model'. | (5) |
| 4) | Discuss the role of libraries in Knowledge management. | (5) |
| 5) | Discuss the salient features of W3C and TEI guidelines for content development. | (5) |
| 6) | Discuss the essential features of HTML, XML and DHTML. | (5) |

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

Coverage
Course: Content Development

Course Code: MLIL-006
Assignment Code: AST/TMA-P/ Jan. & Jul.2021

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.

-
- 1) are a metadata for the following document using Dublin Core and HTML. Prep
(15)

Jones, Stephen : Own the whole bird flu survival guide. Queensland, Stephen Jones, 2005; 25 pages.
(Subject – Medicine, Influenza) (Source: <http://www.e-books.co.in/search.php?keywords=medicine>)

- 2) are the entry for “<http://qpaper.ignou.ac.in/Paperindex.htm>” according to field 856 of Marc 21. Prep
(10)

- 3) in the following information design and develop a Website for National Centre for Science Information with the facilities of navigation to two web pages and home page. The homepage should have following features. Fro
(25)

- a) Menu button on left side
- b) Heading in a large font in the body part of the document
- c) Textual matter is left justified
- d) Graphic links to documents within and outside of the page (you may use table layout for designing the Web page.)

The National Centre of Science Information (NCSI) was established at the Indian Institute of Science, Bangalore to make available the world class scholarly information to the scientific community in India. It provides varieties of electronic information services to its users. These services are Intranet and Internet access to bibliographic databases, open access resources on Internet, e-print archive, document delivery service, alerting services - Infowatch and online access to 11,000 e-books. It publishes Info Watch, a monthly electronic news letter. NCSI offers a training programme on Information and Knowledge Management of 18 month's duration. The course contents are management of e-information services, digital libraries, knowledge management etc. Selected candidates receive a monthly scholarship. NCSI offers Project and Consultancy services. Some of the projects are Development of OAI – based Institutional Repository Services in India, Scientific Journal Publishing in India, Development of Full Text Database on biomedicine, Development of K-library for ICICI Knowledge Park etc. In 2006 it conducted workshop on Setting up and Maintaining Institutional Repositories and Scientific Journal Publishing in India. Prof. N.V. Joshi is the present Chairman of NCSI.

MLI-007: Programming
TMA-Theory

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

Course Code: MLI-007
Assignment Code: AST/TMA-T/ Jan. & Jul.2021

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)
- 4) 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)

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.2021

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 $Kelvin = 273 + Celsius$. (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 (10)
(You may select about 15 accession numbers of 5 digits at random).
- 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. (10)
- 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)