PROGRAMME GUIDE

FOR

POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS
(PGDCA)

JANUARY 2021

SCHOOL OF COMPUTER AND INFORMATION SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI - 110 068

www.ignou.ac.in

eProgramme Guide

January, 2021. This is a Programme Guide for new PGDCA (1 Year) Programme offered by IGNOU from January, 2021 admission cycle onwards.

Further information on the Indira Gandhi National Open University courses can be obtained from the University's office at Maidan Garhi, New Delhi-110 068 or from its Regional Centres spread across the length and breadth of the country.

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MESSAGE FROM THE PROGRAMME CO-ORDINATOR

Dear student,

Welcome to the family of distance learners and IGNOU's Post Graduate Diploma in Computer Applications Programme. It is a one-year programme during which you will study a wide range of topics in Computer Science and Applications. You will receive support from IGNOU through the regional centre, **Learner'S Support Centre (LSC)** to which you will be allotted and also from IGNOU's website. We expect you to be directly in contact with us and your peers through the Internet also, at the email address given below.

Along with this Programme Guide, you would have received the entire course material and the assignments booklet for the first semester. The entire course consists of This consists of 10 courses: (6 theory & 4 practical) worth 32 credits. Each course contains **only one assignment** that will be assessed by a counsellor at your LSC. All these assignments are to be submitted at your LSC within the stipulated time mentioned against last date of submission.

At your LSC you will be able to avail yourself of the counselling for all the courses. *You need to have a minimum of 75% attendance for practical counselling sessions to be eligible for appearing for the Term-end Practical Examinations.* You must also submit the assignments of every course before the due date to be eligible to appear for the related Term-end Examinations.

It is to be noted that the payments that are mentioned in various proformas/formats are as on date and is subject to revision from time to time. You are advised to keep checking with the website/LSC/regional centre for any revision/modification. **Some useful forms and formats are also given at the end of this booklet. You may use the photocopies of those.** The Programme Guide, forms and formats are also available on the website. Please confirm the fees with the Regional Centre / LSC / Website before you pay.

In case a student needs the assignments, s/he can obtain a copy of the same from the LSC or Regional Centre or may download them from the IGNOU's website with URL www.ignou.ac.in.

As a distance learner, you may have several queries. You will find answers to many of them in this booklet. **This booklet is a very important guide for you. Read it and preserve it until you successfully complete the PGDCA programme.** This Programme Guide contains all the information and forms related to the PGDCA programme. However, during your studies, if you have any feedback, suggestions and comments to make, please write to us immediately.

Learners are advised to be in touch with their LSCs for advice / timely / day-to-day information or visit the website with URL **www.ignou.ac.in**.

I wish you all the success in pursuing the PGDCA programme.

PGDCA Programme Coordinator
Email: pgdca@ignou.ac.in

1. BASIC INFORMATION

1.1 PGDCA Programme Objectives

The broad objective of the Post Graduate Diploma in Computer Applications (PGDCA) programme is to prepare graduate students for productive careers in software industry. The programme's thrust is on giving the students a thorough and sound background in theoretical and application-oriented courses relevant to the latest computer software development. The programme emphasizes the application of software technology to solve mathematical, computing, communications / networking and commercial problems.

This PG Diploma is a stand-alone programme consists of 10 (6 theory and 4 practical) courses worth 32 credits. It has been designed with a semester approach in mind. The courses are aimed at skills development in computers using various technologies. It prepares the student to aim for a programmer level / web developer in a software company to design and develop small business application software or lab personnel / technician in institutions or a freelancer to develop software projects.

1.2 Eligibility Criteria

Any Bachelor's degree of minimum 3 (three) year duration from a recognized University AND Mathematics as one of the subject at 10+2 level or Graduation level.

<center>**OR**</center>

Any Bachelor's degree of minimum 3 (three) year duration from a recognized University AND **doesn't have** Mathematics as one of the subject at 10+2 level or graduation level. These students are required to successfully complete BCS-012 (Graduate level Mathematics course) as Bridge Course.

Note: *It is essential to obtain at least 50% marks in the qualifying examination (45% marks in case of candidates belonging to reserved category) for admission to MCA. Please refer to eligibility conditions for admission to MCA.*

1.3 Duration of the Programme
(Minimum – 1 Year, Maximum – 3 Years)

To fulfill the requirements for acquiring the PGDCA, a student may clear all the courses in a minimum of one year and a maximum of 3 years.

Note: - Admission to PGDCA offered in both January and July Cycle of admissions

1.4 Medium of Instruction

The medium of instruction is only **English.** The course material will also be in **English**.

1.5   Credit System

The University follows the 'Credit System' for its programmes. Each credit is worth 30 hours of student study time, comprising all the learning activities. Thus, a four-credit course involves 120 study hours. This helps the student to understand the academic effort one has to put into successfully complete a course. **Completion of the programme requires successful completion of both assignments and the Term-End Examination of each course in the programme.**

1.6   PGDCA Programme Structure

The programme has been divided into two semesters per year (January to June and July to December). Consequently, there will be two examinations every year - one in the month of June for the January to June semester courses and the other in December for the July to December semester courses. The students are at liberty to appear for any of the examinations conducted by the University during the year subject to completing the minimum time framework and other formalities prescribed for the programme.

PGDCA(Revised) Programme Structure

Course Code	Title of the course	Theory / Practical/Project	Credits
	Semester I		
MCS-201	Programming in C and Python	Theory	4
MCS-202	Computer Organisation	Theory	4
MCS-203	Operating Systems	Theory	4
MCSL-204	WINDOWS and LINUX Lab	Practical	2
MCSL-205	C and Python Lab	Practical	2
	Semester II		
MCS-206	Object Oriented Programming Using Java	Theory	4
MCS-207	Database Management Systems	Theory	4
MCS-208	Data Structures and Algorithms	Theory	4
MCSL-209	Data Structures and Algorithms Lab	Practical	2
MCSL-210	DBMS and Java Lab	Practical	2

No. of Theory Courses – 6   No. of Practical Courses – 4   Total Credits: 32

1.7   Recognition

IGNOU is a Central University established by an Act of Parliament in 1985 (Act No.50 of 1985) IGNOU Degrees/Diplomas/Certificates are recognized by all member Universities of Association of Indian Universities (AIU) and are at par with Degrees/Diplomas/ Certificates of all Indian Universities/Deemed Universities/Institutions vide UGC Circular No. F1-52/2000 (CPP-II) dated   5 May, 2004 & AIU Circular No. EV/B (449)/94/177115 dated January 14, 1994, and UGC's letter no. UGC/DEB/2013 dated 14.10.2013. You may download all the recognition related information from the following web links.

http://www.ignou.ac.in/ignou/aboutignou/division/srd/new
http://ignou.ac.in/ignou/aboutignou/division/srd/Recognition

1.8   Completion of BCS-012

Students who took admission into PGDCA and did not have Mathematics at 10+2 level or at graduate level have to do BCS-012. They are advised to clear it along with the PGDCA courses.

1.9   Student Support Services

In order to provide individualized support to its learners, the University has created a number of **Learner Support Centres (LSC)** throughout the country for this Programme. These are administratively coordinated by the Regional Centres. The LSCs are the contact points for the students on all major aspects of the Programme. These include counselling sessions, practical sessions, reference library facilities, disseminating information and advice, facilities for audio-visual training aids and teleconferencing.

The University may not always be able to communicate to all the students individually. All the important communications are sent to the Regional Directors who in turn will intimate them to the LSC Coordinators. The Coordinators display such Circulars / Notifications on their notice boards for the benefit of the students. You are, therefore, advised to be in touch with your LSC Coordinator on a more regular basis so as to get the latest information about assignments, submission schedules (assignments and examination forms), declaration of results, etc.

1.10   How to contact the PGDCA Programme Coordinator?

Students may contact the PGDCA Programme Coordinator by sending a communication through post to The PGDCA Programme Coordinator, SOCIS, Vishveswaraiah Bhavan, C-Block, IGNOU Academic Complex, IGNOU, Maidan Garhi, New Delhi – 110068, or can send an email to pgdca@ignou.ac.in

1.11   Upgrade Path

After the successful completion of the PGDCA of IGNOU, students with the below mentioned criteria can take direct Admission to MCA 1st semester of 2 years MCA Programme.

MCA Eligibility Criteria

(a) Passed BCA / B.Sc(Computer Science/IT) / Bachelor Degree in Computer Science Engineering or Equivalent Degree
(b) Obtained atleast 50% marks in the qualifying examination (45% marks in case of candidates belonging to reserved category)

OR

(a) (i) Any Bachelor's degree of minimum 3 (three) year duration from a recognized University AND Mathematics as one of the subject at 10+2 level or graduation level.
(ii)Obtained atleast 50% marks in the qualifying examination (45% marks in case of candidates belonging to reserved category).
(b) Successfully completed **PGDCA of IGNOU**

2.   INSTRUCTIONAL SYSTEM

The methodology of instruction in this University is different from that of the conventional universities. The Open and Distance Learning (ODL) University system is more learner-oriented, and the student has to be an active participant in the teaching-learning process. Most of the instruction is imparted through distance mode with only a small component of face-to-face communication. The University follows a multi-channel approach for instruction. It comprises a suitable mix of:

☞ self-instructional printed material

☞ audio-video programmes transmitted through GYANVANI and GYAN DARSHAN channel

☞ face-to-face counselling at LSC by academic counsellors

☞ reference library at LSC

☞ web based academic support

☞ eContent (SLM) and Video Archives on eGyankosh

☞ assignments

☞ practical

☞ Gyan Darshan Channel, including teleconferencing

☞ Gyan Vani

☞ SWAYAMPRABHA-DTH (channel-19)

2.1   Self Instructional Material

Printed materials are the primary form of instructional materials. These are supplied to the learners in the form of several booklets called blocks. Each block consists of several units. The size of a unit is such that the material given therein may be expected to be studied by a student in a session of about 4 to 6 hours of study. Therefore, you have to concentrate mainly on the print materials, which we send to you. However, the fast pace of computer industry necessitates that students must do some additional readings. Students are advised to study reference books without fail. Studying the printed material alone may not be sufficient to write assignments and prepare for the Term-end Examinations. Some reference books are available at your LSC.

2.2   eGyankosh, SWAYAMPRABHA-DTH (Channel-19) and IGNOU eContent App

eGyankosh (**www.egyankosh.ac.in**) is a digital repository consists of the reference links Self instructional materials, recorded videos, youtube-video archives etc. Various links for the eGyankosh related to SOCIS are:

eGyankosh Homepage: http://www.egyankosh.ac.in/

Self Learning Material: http://www.egyankosh.ac.in/handle/123456789/380

Youtube-Video Archives: http://www.egyankosh.ac.in/handle/123456789/35748

The **SWAYAM PRABHA-DTH Channel-19** (Professional and Vocational Education) is funded by MoE, Govt of India and Coordinated by IGNOU, New Delhi. This is an exclusive channel covering IGNOUs' Professional and Vocational Education Programmes. This channel

broadcasts visually high-quality and graphically enriched video content of IGNOUs' Certificate/Diploma/PG Diploma/PG Certificate/Under Graduate/Post Graduate courses pertaining to Computer Science/Application, Management Studies, Vocational Education, Engineering & Technology, Law Extension and Development Studies, Social Work, Journalism and New Media Studies, Performing Arts and Health Sciences. The scope is very wide and covers courses from 10 Schools of IGNOU through this channel. These video lectures are delivered by Faculty of IGNOU and also from renowned institutional in India, covering basics to advanced courses. Gradually, IGNOU is recording and pooling the videos on Channel-19

SWAYAM PRABHA homepage: https://www.swayamprabha.gov.in/

Professional and Vocational Education (Channel-19):
https://www.swayamprabha.gov.in/index.php/program/current_he/19

Archive Video: https://www.swayamprabha.gov.in/index.php/program/archive_he/19

IGNOU eContent App

The self instructional course material of various programmes of IGNOU are made available through **IGNOU eContent APP**

https://play.google.com/store/apps/details?id=ac.in.ignou.Viewer&hl=en IN

2.3   Counselling Sessions

The details of the theory and practical counselling sessions are given in the following sections.

2.3.1 Theory Sessions

In distance education, face-to-face contact between the learners and their tutors/counsellors is relatively less. The purpose of such a contact is to answer some of your questions and clarify your doubts that may not be possible through any other means of communication. It also provides you with an opportunity to meet your fellow students.

There are academic counsellors at the LSCs to provide counselling and guidance to you in the courses that you have chosen for study. Normally, these sessions will be held at the LSCs on Saturdays and Sundays.

You should note that the counselling sessions would be very different from the classroom teaching or lectures. Counsellors will not be delivering lectures as in conventional teaching. They will try to help you to overcome difficulties that you face while studying for the PGDCA programme. In these sessions, you must try to resolve your subject-based difficulties and any other related problems.

> **Before attending the counselling session for each course, please go through your course material as per the session schedule and make a plan of the points to be discussed. Unless you have gone through the Units, there may not be much to discuss and a counselling session may not be fruitful.**

2.3.2 Practical Sessions and Compulsory Attendance

The practical sessions will be held in the computer centres / labs of the LSCs. In these computer labs, the participants will have the facility to use the computer and software packages relevant to the syllabus. The following points regarding the practical attendance must be noted:

(i)   75% attendance is compulsory for each lab course. **However, this condition is not applicable for the computer time given for a specific assignment.**

(ii)   This is a pre-requisite for taking the term-end practical examination in the respective lab courses.

(iii)   A student who fails to fulfil the 75% attendance requirements will be allowed to re-register for that lab course. For fee details and the application form, please contact your Regional Centre.

(iv)   Students are required to prepare a separate lab record for each lab course. The practical counsellor should duly sign this lab record after each session.

(v)   Student attendance will be recorded coursewise at the LSC.

(vi)   Strictly follow the guidelines given in the Lab manuals for the respective lab courses.

(vii)   Computer to Student ratio will be 1:2 (2 students sharing one computer).

2.3.3 Counselling Schedule

PGDCA 1st Semester Schedule

Course	Title of the course	Theory/ Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-201	Programming in C and Python	Theory Sessions	4	6	12	-	-
MCS-202	Computer Organisation	Theory Sessions	4	6	12	-	-
MCS-203	Operating Systems	Theory Sessions	4	6	12	-	-
MCSL-204	WINDOWS and LINUX Lab	Practical Sessions	2	-	-	20	60
MCSL-205	C and Python Lab	Practical Sessions	2	-	-	20	60

PGDCA 2nd Semester Schedule

Course	Title of the course	Theory/ Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-206	Object Oriented Programming Using Java	Theory Sessions	4	6	12	-	-
MCS-207	Database Management Systems	Theory Sessions	4	6	12	-	-
MCS-208	Data Structures and Algorithms	Theory Sessions	4	6	12	-	-

MCSL-209	Data Structures and Algorithms Lab	Practical Sessions	2	-	-	20	60
MCSL-210	DBMS and Java Lab	Practical Sessions	2	-	-	20	60

∗ **Theory counselling sessions is of 2 Hr duration.**
∗ **Practical counsessling sessions is of 3 Hr duration.**

Semester	No. of Sessions		No. of Hours	
	Theory	**Practical**	**Theory**	**Practical**
I	18	40	36	120
II	18	40	36	120
TOTAL	**36**	**80**	**72**	**240**

Total Computer time = Practical time
= 40 Sessions =120 Hours
Note: 75% attendance is compulsory in Practical Lab Sessions.

2.4   Web Based Support

The learners can have access to IGNOU's website at the following address (URL): ***http://www.ignou.ac.in.***You can download assignments, old question papers, circulars, etc. from the website. The Programme Guide is also available at the website. The following section gives you how to browse the IGNOU's website.

2.4.1   Lectures on Gyan Darshan and Interactive Radio Counselling

The live lectures based on PGDCA courses of SOCIS are telecasted on GD (Gyan Darshan) channel. The live telecast can be seen on http://www.ignouonline.ac.in/ .You can listen radio counseling programs on http://www.ignouonline.ac.in/. Also schedule of GD (Gyan Darshan) lectures and Interactive Radio Counselling Program (IRC) can be listened on http://www.ignouonline.ac.in/ .

Figure-1: IGNOU Online

2.4.2 Details of Availability Gyan Darshan and Gyan Vani Channels on various DHT platforms

Gyan Darshan Channel

Sl.No.	DTH Platform	TV Channel No.
1.	Airtel	442
2.	TATA Sky	755
3.	Sun Direct	596
4.	Den	526
5.	In Digital	297
6.	Hathway	473

Telephone number of EMPC Video Studio-2 for interaction; during live session: 011-29532844, 011-29532845, Toll Free: 1800112346, Fax: 011-29536134

Gyan Vani Channel

Sl.No.	DTH Platform	TV Channel No.
1.	DD Free Dish	44

3.   BROWSING IGNOU'S WEBSITE

The IGNOU's website is a dynamic source of latest information and is subject to continuous updates. Thus, various pages shown here may change in future. IGNOU itself is continuously changing to bring about improvement in quality of its services. You must visit IGNOU website for all the latest information, filling up or downloading various form, downloading of assignments, results etc.

3.1   Navigation from Home Page

The learners can have access to IGNOU's website at the following address (URL) ***http:// www.ignou.ac.in***. As students get connected to this site, the following page displays the Home Page of IGNOU's web site (Figure 1). Students need to click on various options to get the related information.

Figure 1: IGNOU Website

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From this **Home page,** Select <u>About IGNOU</u> which will display an Option List select **Schools of Studies. It** will show you a page of all the Schools of studies of IGNOU, Select **School of Computer and Information Sciecnes (SOCIS)** to display page of SOCIS (Figure 2).School of Computer and Information Sciences (SOCIS) offers PhD in Computer Science, MCA, BCA, PGDCA and CIT programmes, You can click on **Programmes** link on SOCIS page to get the list of programmes on offer as shown in Figure 2. You can now click on PGDCA programme link to get information about the PGDCA Programme.
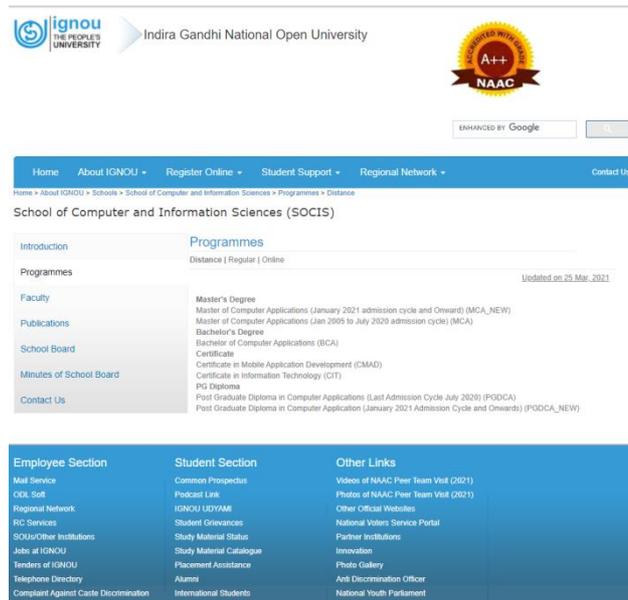
Figure 2: SOCIS Programmes

One of the most important link for students is Student Zone which can be reached from Home page by selecting Student Zone option on the Student Support Option List (Link address: *http://www.ignou.ac.in/ignou/studentzone*). Figure 3 displays the options of the Student Zone page.
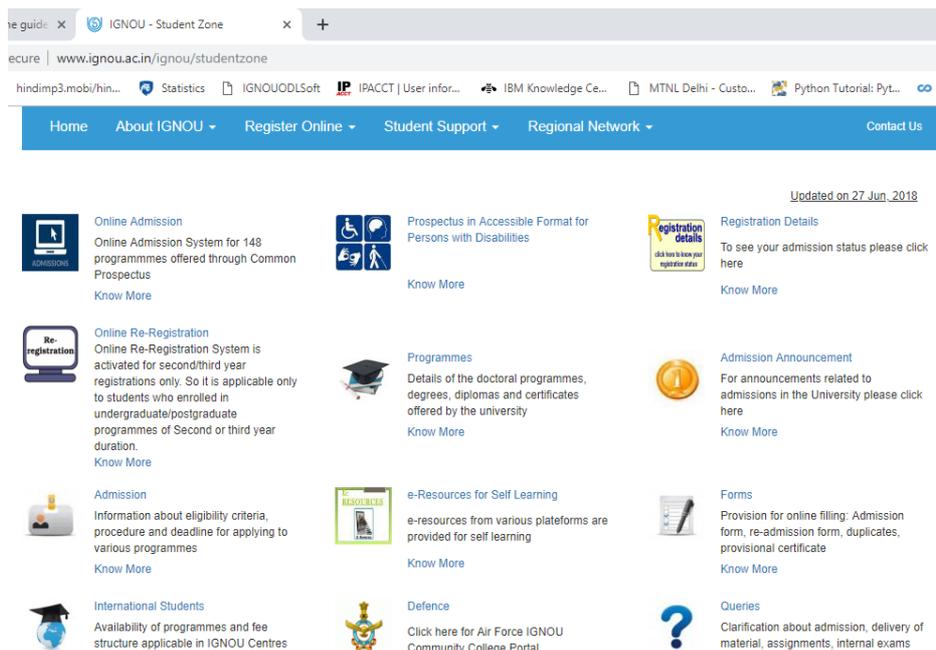
Figure 3: Student Zone page

4. PGDCA PROGRAMME SYLLABUS

The following is the syllabus for the first and second semesters of PGDCA programme.

SYLLABUS: PGDCA

SEMESTER - 1

MCS-201   **Programming in C and Python**   Credits– 4

Objective

The course is aimed to develop problem-solving strategies, techniques and skills that can be applied to computers and problems in other areas which give students an introduction to computer and analytical skills to use in their subsequent course work and professional development. Emphasis of this course is to act as an introduction to the thinking world of computers, to help students develop the logic, ability to solve the problems by using C & Python as programming languages. Knowledge in a programming language is prerequisite to the study of most of computer science courses. This knowledge area consists of those skills and concepts that are essential to problem solving and programming practice independent of the underlying paradigm. The student will learn various concepts and techniques for problem solving and will implement those ideas using C and Python programs.

Block and Unit Structure

C PROGRAMMING (BLOCK - 1 & 2)

BLOCK 1: An Introduction to C

Unit 1:   **Programming Fundamentals**

- Problem - Solving Techniques
  - Steps for Problem - Solving
  - Using Computer as a Problem-Solving Tool
- Baics of Algorithms
  - Definition
  - Features of Algorithm
- Flowcharts
  - Basic Symbols used in Flowchart Design
- Structured Programming concepts
- C Language and its features
- Structure of a C Program
- Writing a C Program
- Compiling a C Program
  - The C Compiler
  - Syntax and Semantic Errors
- Link and Run the C Program
  - Run the C Program through the Menu
  - Run from an Executable File
  - Linker Errors

- Logical and Runtime Errors
-

Unit 2:   **Data Types Operators and Expressions**

- Character Set
- Identifiers and Keywords
  - Rules for Forming Identifiers
  - Keywords
- Data Types and Storage
- Data Type Qualifiers
- Variables
- Declaring Variables
- Initialising Variables
- Constants
  - Integer Constants
  - Floating Point Constants
  - Character Constants
  - String Constants
  - Symbolic Constants
- Preprocessor directives
- Assignment Statements
- Arithmetic Operators

- Relational Operators
- Logical Operators
- Comma and Conditional Operators
- Type Cast Operator
- Size of Operator
- C Shorthand
- Priority of Operators

Unit 3: Decision and Loop Control Statements

- Decision Control Statements
  o The *if* Statement
  o The *switch* Statement
- Loop Control Statements
  o The *while* Loop
  o The *do-while* Statement
  o The *for* Loop
  o The Nested Loop
- The *Goto* Statement
- The *Break* Statement
- The *Continue* Statement

Unit 4: Arrays& Strings

- Array Declaration
  o Syntax of Array Declaration
  o Size Specification
- Array Initialization
  o Initialization of Array Elements in the Declaration
  o Character Array Initialization
- Subscript
- Processing the Arrays
- Multi-Dimensional Arrays
  o Multi-Dimensional Array Declaration
  o Initialization of Two-Dimensional Arrays
- Declaration and Initialization of Strings

- Display of Strings Using Different Formatting Techniques
- Array of Strings
- String Functions and Applications

BLOCK 2:Functions, Structures, Pointers and File Handling in C
Unit 5: Functions
- Definition of a Function

- Declaration of a Function
- Function Prototypes
- The Return Statement
- Types of Variables and Storage Classes
  o Automatic Variables
  o External Variables
  o Static Variables
  o Register Variables

- Types of Function Invoking
- Call by Value
- Recursion

Unit 6: Structures and Unions

- Declaration of Structures
- Accessing the Members of a Structure
- Initializing Structures
- Structures as Function Arguments
- Structures and Arrays
- Unions
- Initializing an Union
- Accessing the Members of an Union
- Bit fields

Unit 7: Pointers

- Pointers and their Characteristics
- Address and Indirection Operators
- Pointer Type Declaration and Assignment
  o Pointer to a Pointer
  o Null Pointer Assignment
- Pointer Arithmetic
- Passing Pointers to Functions
  o A Function Returning More than One Value
  o Function Returning a Pointer
- Arrays and Pointers
- Array of Pointers
- Pointers and Strings

Unit 8: File Handling
- File Handling in C Using File Pointers
  o Open a file using the function *f* open *( )*
  o Close a file using the function *f*close*( )*
- Input and Output using file pointers
  o Character Input and Output in Files
  o String Input / Output Functions

- o Formatted Input / Output Functions
- o Block Input / Output Functions
- Sequential Vs Random Access Files
- Positioning the File Pointer
- The Unbufferred I/O - The UNIX like File Routines

PYTHON PROGRAMMING (BLOCK-3&4)
Block-3 Introduction to Python Programming
Unit-9 Introduction to Python
- History of Python
- Need of Python
- Packages for Cross platform application of Python
- Getting started with Python
- Program structure in python
- Running the First program

Unit-10 Data Structures and control statements in Python
- Data Types
- Data Structures
  - o Arrays
  - o Linked Lists
  - o Stacks
  - o Queues
- Sequence, Selection and Iteration constructs
- Recursion

Unit-11 Functions and File Handling in Python
- Function definition and call
- Function Scope
- Arguments
- Function Objects
- Lambda Functions

- Anonymous Functions
- File Operations
  - Creating. Opening and using files

Unit-12 Modules and Packages
- Module Creations and Usage
- Module Search Path
- Module Vs. Script
- Package Creation and Importing
- Standard Library Modules

Block-4 Advanced Features in Python
Unit-13 Classes in Python
- Introduction to Object Oriented Paradigms
- Classes and instances
- Classes method calls
- Inheritance and Compositions
- Static and Class Methods
- Operator Overloading
- Polymorphism

Unit-14 Exception Handling in Python Programming
- Default Exception Handler
- Catching Exceptions
- Raise an exception
- User defined exception

Unit-15 Advanced Concepts
- Decorators
- Generators
- Iterators
- Co-routines

Unit-16 Data Access using Python
- Database concepts
- Creating database
- Querying Database
- Using SQL to get more out of database

MCS-202   **COMPUTER ORGANISATION**   **Credits:4**

Objective

This course explains the basic component of computer systems. This course includes details on data representation, interconnection structures, memory system, input-output system, and the Central Processing Unit. It also provides a detailed view of digital logic circuits, microprocessors and assembly language Programming and some of the important peripheral devices. Some of the advanced computer organizations are also part of this course.

The first block of the course explains Data Representation, Instruction Execution, Interrupts, Buses, Boolean algebra, Design of Logic Circuits, etc. The second block deals with the Memory System, The Memory Hierarchy, Secondary Storage technologies, the concepts of high speed memory, Cache Organisation , Input Output interfaces, Input Output techniques, DMA, Input Output processors, External Communication Interfaces, Interrupt Processing, BUS arbitration, etc. The third block deals with the Central Processing Unit. It includes the Instruction Set, the Instruction format, the Instruction Set Architecture, Micro-Operations, the organization of Arithmetic logic unit, Design of simple units of ALU, the Control Unit, The hardwired control, Wilkes control, the Micro-programmed control etc. The fourth block deals with the Assembly Language Programming, Microprocessor, RISC, and various types of multiprocessor technologies.

Block and Unit Structure

Block 1: Data Representation and Logic Circuits

Unit 1: A Computer System

Different Architectures of Computer Systems

Von Neumann Architecture
Instruction Set Architecture
CISC and RISC
Mobile Architecture
Multi-processor Architectures
Instruction and its Execution using
Simple Register Set

Unit 2: Data Representation

Number System
Conversions of various types of Numbers
Character Representation – ASCII, UNICODE (UTF 8 and UTF 16)
Negative Number Representation using Complements
Fixed Point Representation
Floating Point Representation
Normalized Mantissa, biased Exponent, precision
IEEE Format for single and double precision numbers with examples
Error Detection Codes
Parity Bit
Single Error Correcting Code

Computer Arithmetic
Addition and Subtraction
Multiplication and Division

Unit 3: Logic Circuits - Introduction

Digital Logic
Boolean algebra
Logic Gates
Combinational Circuits
Canonical forms, Minterm, Maxterm
Combinational Circuits simplification using Boolean Algebra and K-map
Design of circuits using NAND, NOR, AND, OR, NOT gates
Examples of Combinational Circuits
Adders**,** Decoders**,** Multiplexer**,** Encoder**,** Programmable Logic Array, Read Only Memory ROM, Adder-Subtractor

Unit 4: Logic Circuits – Sequential Circuits

Flip Flops - Basic latch and its working
Clocked flip flops (S-R, D, J-K, T with Logic diagram, characteristics table and Excitation Tables)
Master Slave Flip Flops and Edge Triggered Flip-flops
Examples of Sequential Circuits (Registers**,** Counters – Asynchronous Counters**,** Synchronous Counters, RAM)

Sequential Circuit Design Example using 2 bit counter

Block 2: Memory and Input/Output Organisation

Unit 5: The Memory System
The Memory Hierarchy
SRAM, ROM, DRAM, Flash Memory, Secondary Memory, Auxiliary Memory
Hard Disk Drives, Optical Memories, SSD, CCDs, Bubble Memories
(Characteristics: Drive Speed, Access Time, Rotation Speed, Partitioning & Formatting, Hard Drive Interface, Removable Drives (CD-ROM & DVD-ROM), Removable Storage Options, Blue Ray discs.
RAID and its Levels

Unit 6: Advance Memory Organisations
Locality of Reference -Spatial, temporal, sequential
Cache Memory, Cache Organisation
Associative Memory
Interleaved Memory
Virtual Memory

Unit 7: Input/Output Organisation
Input / Output Devices or External or Peripheral Device,
I/O Interface/ External Communication Interfaces
Memory Mapped I/O and Isolated I/O
Input Output Interface, Interrupts
Modes of Transfer, Priority Interrupt, DMA, Serial Communication. The Device Controllers and its Structure, Device Drivers, Plug and Play
Input Output Techniques (Programmed Input /Output, Handshaking, Interrupt-Driven Input /Output, Interrupt-Processing
DMA (Direct Memory Access), Input Output Processors

Unit 8: Device Technology
Keyboard, Mouse, Video Cards, Monitors, Liquid Crystal Displays (LCD), LEDs, Digital Camera, Sound Cards, Printers, Modems, Scanners

Block 3: The Processing Unit
Unit 9: Instruction Set Architecture
Instruction Set Characteristicsand Design Considerations
Operand Data Types, Types of Instructions, Stored Program Organization, Number of Addresses and Instruction size
Instruction Set and Format Design Issues (Instruction Length, Allocation of Bits among Opcode and Operand, Variable Length of Instructions, Example of Instruction Format.
Addressing Schemes
Immediate Addressing, Direct Addressing, Indirect Addressing, Register Addressing, Register Indirect Addressing, Indexed Addressing Scheme, Base Register Addressing, Relative Addressing Scheme, Stack Addressing

Unit 10: Registers, Micro-Operations and Instruction Execution
Register Organization (Programmer Visible Registers, Status and Control Registers),
Register Transfer Language, Bus and Memory Transfers
Arithmetic, Logic and Shift Micro-operations,
Instruction Execution and Micro-operations, Timing and Control, Instruction Cycle, Memory-Reference Instructions,
Input-Output, Interrupt, Instruction Pipelining,
ALU Organisation

Unit 11: The Control Unit
Hardwired Control, Wilkes Control
Micro-Programmed Control
The Micro-Instructions (Types of Micro-Instructions, Control Memory, Micro-Instruction Formats), The Execution of Micro-

Program, Address Sequencing,
Design issues of Control Unit.

Unit 12: Reduced Instruction Set Computer Architecture

Introduction to RISC
Importance of RISC Processors
Reasons for Increased Complexity
High Level Language Program
Characteristics
RISC Architecture
The Use of Large Register File
Comments on RISC, RISC Pipelining

Block 4: Microprocessor and Advanced Architectures

Unit 13: Microprocessor Architecture

Structure of 8086 CPU (The Bus
Interface Unit, Execution Unit (EU))
Register Set of 8086, Instruction Set of
8086 (only limited number of
instructions to be explained -Data
Transfer Instruction, Arithmetic
Instructions, Bit Manipulation
Instructions, Program Execution
Transfer Instructions, String
Instructions, Processor Control
Instructions)
Addressing Modes (Register
Addressing Mode, Immediate
Addressing Mode, Direct Addressing
Mode, Indirect Addressing Mode)

Unit 14: Assembly Language Programming

Use of Assembly Language
programming, Machine Language,
Assembly Language, Assembler, Input-
Output Programming. Assembly
Language, Assembly Program
Execution, An Assembly Program and
its Components (The Program

Annotation, Directives), Input Output in
Assembly Program   (Interrupts, DOS
Function Calls (Using INT 21H)),
The Types of Assembly Programs
(COM Programs, EXE Programs), How
to Write Good Assembly Programs

Unit 15: Assembly Language Programming

Simple Assembly Programs (Data
Transfer, Simple Arithmetic
Application, Application Using Shift
Operations, Larger of the Two
Numbers), Programming With Loops
and Comparisons (Simple Program
Loops, Find the Largest and the
Smallest Array Values, Character
Coded Data, Code Conversion),
Programming for Arithmetic and String
Operations (String Processing, Some
More Arithmetic Problems),
Modular Programming (The stack, FAR
and NEAR Procedures, Parameter
Passing in Procedures, External
Procedures)

Unit 16: Advanced Architectures

Parallel Processing
Pipelining
Arithmetic Pipeline
Instruction Pipeline
Vector Processing Array Processors
Multiprocessors
Characteristics of Multiprocessors
Interconnection Structures
Interprocessor Arbitration
Interprocessor Communication and
Synchronization
Cache Coherence
Multicore Processors.

MCS-203   **OPERATING SYSTEMS**   **Credits : 4**

Objectives

This is the core course on Operating Systems (OS). The main objectives of this course are:

- To understand the OS role in the overall computer system
- To study the operations performed by OS as a resource manager
- To understand process concept, process concurrency, synchronization and Deadlocks
- To design and solve synchronization problems
- To understand the scheduling policies of OS
- To understand the different memory management techniques
- To understand the concepts of input/output, storage and file management
- To understand the goals and principles of protection
- To understand the advanced topics such as Multiprocessor Systems, Distributed OS and Mobile OS
- To study and compare different OS(Windows, Linux, Android and Ios) and compare their features.

Block and Unit Structure

BLOCK 1: Introduction to Operating Systems and Process Management

Unit 1 Operating System-An Overview

- What is an Operating System (OS)?
- Goals of an Operating System
- Generations of Operating Systems
- Types of Operating Systems
- Desirable Qualities of OS
- Operating Systems : Some Examples
- Functions of OS

Unit 2 Processes

- Concept of Process
- System Calls for Process Management
- **Process Scheduling**
- Scheduling Algorithms
  - First Come First serve (FCFS)
  - Shortest Job First (SJF)
  - Round Robin (RR)
  - Shortest remaining time next (SRTN)
  - Priority Based Scheduling or Event Driven (ED) scheduling
- Performance evaluation of the Scheduling Algorithms

Unit 3:Interprocess Communication and Synchronization

- **Interprocess Communication**
- **Interprocess Synchronization**
- **Semaphores**

- **Classical problems in concurrent programming**
- **Locks**
- **Monitors and Conditional Variables**

Unit 4:Deadlocks

- **Deadlocks**
- **Characterization of a Deadlock**
- **A Resource Allocation Graph**
- **Dealing with Deadlock Situations**
  - **Deadlock Prevention**
  - **Deadlock Avoidance**
  - **Deadlock Detection and Recovery**
- **Deadlock detection and recovery**
- **Deadlock Prevention**
  - **Havender's Algorithm**
- **Deadlock Avoidance**
  - **Banker's Algorithm**

BLOCK 2: Memory Management, File Management and Security

Unit 1:Memory Management

- Overlays and Swapping
- Logical and Physical Address Space
- Single Process Monitor
- Contiguous Memory Methods
- Paging
  - Principles of operation
  - Page allocation
  - Hardware Support for Paging
  - Protection and Sharing
- Segmentation

- o Principles of operation
- o Address Translation
- o Protection and Sharing

Unit 2: Virtual Memory

- Virtual Memory
  - o Principles of operation
  - o Virtual Memory management
  - o Protection and sharing
- Demand paging
- Page Replacement policies
- Thrashing
  - o Working Set Model
  - o Page Fault Rate
- Demand Segmentation
- Combined Systems
  - o Segmented paging
  - o Paged segmentation

Unit 3: I/O and File Management

- Organization of the I/O function
- I/O Buffering
- Disk Organization
- Disk Scheduling
- RAID
- Disk Cache
- Command language user's view of File System
- **The System programmer's view of the file System**
- The Operating systems' view of file Management
  - o Directories
  - o Disk Space Management
  - o Disk address translation
  - o File related system services
  - o Asynchronous Input / Output

Unit 4: Security and Protection

- Security Threats
- Security Policies and Mechanisms
- Authentication
  - o Passwords
  - o Alternative Forms of Authentication
- Protection in Computer Systems
- Security Models
  - o Access-Control Matrix

- o Mandatory Access Control
- o Discretionary Access Control
- o Rule-Based Access Control
- o Role-Based Access Control
- o The Take-grant Model
- o Multilevel Models

BLOCK 3: Advanced Topics in Operating Systems
Unit 1: Multiprocessor Systems

- Multiprocessor and Processor Coupling
- Types of Multiprocessor Operating System
  - o Separate Supervisors
  - o Master/Slave
  - o Symmetric
- Multiprocessor OS Functions and Requirements

Unit 2: Distributed Operating Systems

- Characteristics of Distributed Systems
- Design Issues Involved in Distributed Systems
- Communication in Distributed Systems
- Clock Synchronization in Distributed Systems
- Mutual Exclusion
- Distributed File Systems
- Distributed Shared Memory
- Remote Procedure Calls
- Other Middleware Technologies

UNIT 3: Mobile Operating Systems
- Introduction
- Objectives
- Mobile Devices – An Introduction
- Mobile Operating System
- Evolution of Mobile OS
- Need for the Mobile OS
- Characteristics of Smartphone OS
- Design Issues in Mobile OS
- Popular Mobile OS

Block – 4 Case Studies (Windows, Linux, Android & IoS)
Unit 1: Case Study 1 – Windows 10
Unit 2: Case Study 2 - LINUX
Unit 3: Case Study 3 – ANDROID
Unit 4: Case Study 4 – IoS

MCSL-204   **WINDOWS and LINUX Lab**   **Credits:2**

Objectives:

Main objective of this laboratory course is to provide hands on exercises to the learners based on Operating Systems Course.

Lab Sessions:

- There will be 20 practicalsessions (3 hours each) of which 10 sessions will be on Windows Operating System and 10 sessions will be on LINUX.
- The practice problems for all 20 sessions will be listed session-wise in the lab manual.

Block 1: WINDOWS and LINUX Lab
Section 1: WINDOWS 10
Section 2: LINUX

MCSL-205   **C and Python Lab**   **Credits : 2**

Objectives:

Main objective of this laboratory course is to provide hands on exercises to the learners based on Programming in C and Python course.

Lab Sessions:

- There will be 20 practicalsessions (3 hours each) of which 10 sessions will be on C Programming and 10 sessions will be on Python.
- The practice problems for all 20 sessions will be listed session-wise in the lab manual.

Block 1 : C and Python Lab
Section 1: C Programming
Section 2: Python Programming

MCS-206　　　　**Object Oriented Programming using Java**　　　　**(4 Credits)**

Objectives:

Today almost every branch of computer science is feeling presence of object- orientation. Object oriented technology is successfully incorporated in various fields of computer science. Java is one of the prominent programming language for Object Oriented Programming. This Course is designed to give you exposure to the concepts of object-oriented programming using java. It will help in learning to write programs in java using object-oriented concepts and features of java including exceptions handling and multithreading. Also this course will teach learners　to use java API, Stream classes, GUI in java, and use of JDBC in applications development.

Block and Unit Structure

Block 1: Java Fundamentals

Unit1: Introduction to Java
- Introduction to Object Oriented Programming
- Features of Java(OOP, robustness, multithreading, networking, Interpreted and High Performance, Distributed, dynamic etc))
- JDK, JRE, JIT, JVM
- Environment setup for java development(First java program)

Unit 2: Basics of Java
- Data Type
- Unicode
- Variables
- Operators
- Statements/expression
- Example Program with use of Scanner Class

Unit3: Decisions and Loops
- Array
- Decision Constructs
- Loop Constructs

Unit4: Class and Objects
- Class Fundamentals
- Declaring Objects
- Object Lifecycle (creation, "dereference by reassignment" and garbage collection)
- Methods(Getter and Setter)
- Encapsulation
- Access Modifier/Specifier
- Constructors in Java
- Garbage Collection
- The Finalize ( ) Method

Block 2: Inheritance, Polymorphism and Packages

Unit 1: Inheritance
- Basics of Inheritance
- Advantages of Inheritance
- Member Access and Inheritance
- Types of Inheritance
- Use of Super Keyword
- Creating Multilevel Class Hierarchy
- Demonstrating Order of Constructors Execution
- Use of Final Keyword

Unit 2: Polymorphism
- Introduction to Polymorphism
- Advantages of Polymorphism
- Types of Polymorphism
- Method Overloading
- Method Overriding
- Abstract Class
- Application of Abstract Class

Unit 3: Assertions and Exception Handling
- Assertion and its use
- Fundamentals of Exception Handling
- Features of Exception
- Types of Exception
- Exceptions Handling in Java
- Multiple Catch Clauses
- Throw
- Throws
- Finally
- Java Built-in Exceptions
- Creating Own Exception Subclasses

Unit 4: Packages and Interfaces
- Package
- Access Rules in Packages

- Finding Packages and CLASSPATH
- Creating Own Packages
- Importing Packages
- Basics of Interface in Java
- Defining , Implementing and Applying Interface
- Default Interface Methods
- Issues of Multiple Interfaces
- Use of static Methods in an Interface

Block 3: Multithreading and I/O

Unit: 1 Multithreading
- Multithreading
- Java thread Model
- Creating Threads in Java
  - Implanting Runnable Interface
  - Extending Thread Class
- Thread Life Cycle
- Creating Multiple Threads
- Using isAlive( ) and join( )
- Thread Priority
- Synchronization
- Interthread Communication
- Suspending , Resuming, and Stopping Threads
- Obtaining a Thread State
- Using Multitheading

Unit 2: Number and Strings (String, StringBuilder, string buffer)
- Number Class and its Methods
- String Class and its Methods
- StringBuilder Class and its Methos
- StringBuffer Class and its Methods

Unit 3: I/O Streams
- Introduction to I/O Class and Interfaces
- File Class and its Methods
- The AutoClonable, Clonable and Flushable Interfaces
- I/O Exceptions
- Introduction to the Stream Classes
- Byte Stream Classes

- Character Stream Classes
- The Clonable Class
- Serialization

Unit 4: Java API
- Date and Time
- Set
- Map
- HashMap
- Stack
- Vector
- List

Block 4: Graphical User Interface and Java Database Connectivity

Unit1: Introduction to GUI in Java
- Introduction to AWT / Swing/ JavaFX
- Features of JavaFX
- User Interface Components of JavaFX
- Work with Layouts
- Add Text
- Add HTML Content

Unit2: Working with UI Controls
- Skin Applications with CSS
- Build UI with FXML
- Event Handling in JavaFX
- Effects, Animation, and Media

Unit3: JDBC Part-1
- JDBC Introduction
- JDBC Driver
- JDBC Database Connection Steps
- JDBC DriverManager Class
- JDBC Statement Interface
- PreparedStatement
- CallbleStatement

Unit:4 JDBC Part 2
- JDBC ResultSet Interface
- JDBC Transactions
- JDBC Batch Processing
- JDBC RowSet Interface
- Introduction to Java Data Object (JDO)

Objective

Database systems are pervasive. They are present in every segment of commercial, academic and virtual world. They are required as the backbone of any information system, enterprise resource planning, e-commerce website and other activity that required permanence of data storage. Database management systems manage data more efficiently and effectively. This course provides the basic conceptual background necessary to design and develop simple database system. This course also provides you information about various types of database management system. After going through this course, a student will be able to:

➢ explain features of a DBMS and various database models
➢ create conceptual database model like E-R models and create a relational database design
➢ write relational algebraic and SQL queries including static and dynamic SQL queries
➢ normalize a database design
➢ explain the features of transactions, Recovery, Concurrency and Security in DBMS.

Block and Unit Structure

Block 1: Introduction to DBMS

Unit 1: Database Management System – An Introduction
Need for a Database Management System
Logical DBMS Architecture - Three level architecture of DBMS
Mappings between levels and data independence
Physical DBMS Structure -
DML Precompiler**,** DDL Compiler**,** File Manager**,** Database Manager **,** Query Processor**,** Database Administrator**,** Data files indices and Data Dictionary
Introduction to Different Data Models and Current Trends

Unit 2: Relational Database
The Relational Model (Domains, Attributes, Tuple and Relation, Super keys Candidate keys and Primary keys for the Relations)
Relational Constraints, (Domain Constraint, Key Constraint, Integrity Constraint, Update Operations and Dealing with Constraint Violations)
Relational Algebra (Basic Set Operation, Cartesian product, Relational Operations)
Example of queries using relational algebra

Unit 3: ER Model
Entity Relationship (ER) Model (Entities, Attributes, Relationships)
E-R Diagram
Enhanced ER tools (Subclasses, Super class, and Inheritance, Specialization and Generalization, Constraints and Characteristics of Specialization and Generalization)
Converting ER and EER diagram to tables

Unit 4: File Organisation in DBMS
Physical Database
Storage of Database on Hard Disks
File Organisation and Its Types
Sequential File Organisation, Indexed File Organisation, Hashed File Organisation
Types of Indexes, Index and Tree Structure, Multi-key File
Importance of File

Organisation in Databases

Block 2: Normalisation and Database Queries

Unit 5: Integrity, Functional Dependence and Normalization
Relational Database Integrity (The Keys, Referential Integrity, Entity Integrity)
Redundancy and Associated Problems
Functional Dependencies
Normalization (The First Normal Form, The Second Normal Form, The Third Normal Form, Boyce Codd Normal Form
Desirable Properties of Decomposition with examples

Unit 6: Higher Normal Forms
Multi value dependency
4NF
Join Dependency
5NF
Introduction to other normal form

Unit 7: Structured Query language
Data Definition Language
Data Manipulation Language
Data Control Language
SQL Introduction
Aggregate functions, Group by and having clause

Unit 8: Complex Queries
Joins
    Equi join, self join, outer joins etc.
Sub-queries and correlated sub-queries
Views, Sequences, Indexes, Synonyms
Nested Queries

Unit 9: Advanced SQL
Assertion and views
Cursors, triggers and stored procedures
Embedded SQL
Dynamic SQL
Advanced Features of SQL

Block 3: Database Transactions, Recovery and Security

Unit 10: Transaction Management
The Transactions and its Properties
The Concurrent Transactions and associated problems
The Locking Protocol (Serialisable Schedules, Locks, Two Phase Locking (2PL)
Deadlock and its Prevention
Deadlock Handling,
Optimistic Concurrency Control
Timestamp based Protocol
Multi-version Schemes
Weak Levels of Consistency
SQL commands for Transactions

Unit 11: Database Recovery and Security
Recovery and Atomicity
Recovery with Concurrent Transaction
Checkpointing
Buffer Management
Levels of database security
Access control
Audit trails in the databases
Relationship between Security and Integrity
SQL support for recovery and security

Unit 12: Query Evaluation
Measures of Query Cost (Selection Operation,, Sorting, Join Operation, other Operations)
Evaluation of Expression
Transformation of Relational Expressions
Role of Relational Algebra in query optimization
Estimating Statistics of Expression
Choice of Evaluation Plans
Views and query processing
Storage and query optimization.

Block 4: Introduction to Advanced Database Models

Unit 13: Object Oriented Database

Unit 14: Data Mining and Data Warehousing

Unit 15: NOSQL databases

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Unit 16: Emerging Database Models

MCS-208   **Data Structures and Algorithms**   **4 Credits**

Objectives

The learner should become well versed with Algorithms and various data structures. S/he should be able to use them appropriately as per need during development of programs. Also, the learner should know different sorting and searching techniques so that correct techniques can be used in different programs so that the complexity of the program does not increase due the sorting/search technique employed. The course also includes Advanced Data Structures which will enable learner to apply them in solving complex problems.

Block and Unit Structure

BLOCK 1:   Introduction to Algorithms and Data Structures

Unit 1:Analysis of Algorithms

- Mathematical Background
- Process of Analysis
- Calculation of Storage Complexity
- Calculation of Run Time Complexity

Unit 2:Arrays, Pointers and Structures

- Arrays and Pointers
- Sparse Matrices
- Structures
- Polynomials
- Representation of Arrays
  o Row Major Representation
  o Column Major Representation
- Applications

Unit 3:Lists

- Abstract Data Type-List
- Array Implementation of Lists
- Linked Lists-Implementation
- Doubly Linked Lists-Implementation
- Circularly Linked Lists-Implementation
- Skiplists
- Applications

BLOCK 2:   Stacks, Queues and Trees

Unit 4: Stacks

- Abstract Data Type-Stack
- Implementation of Stack
  o Implementation of Stack using Arrays
  o Implementation of Stack using Linked Lists

- Algorithmic Implementation of Multiple Stacks
- Applications

Unit 5:Queues

- Abstract Data Type-Queue
- Implementation of Queue
  o Array Implementation
  o Linked List Implementation
- Implementation of Multiple Queues
- Implementation of Circular Queues
  o Array Implementation
  o Linked List Implementation of a circular queue
  Priority Queues
- Implementation of DEQUEUE
  o Array Implementation of a dequeue
  o Linked List Implementation of *a dequeue*

Unit 6:Trees

- Abstract Data Type-Tree
- Implementation of Tree
- Tree Traversals
- Binary Trees
- Implementation of Binary Tree
- Binary Tree Traversals
  o Recursive Implementation of Binary Tree Traversals
  o Non Recursive Implementations of Binary Tree Traversals
- Applications

BLOCK 3: Graph Algorithms and Searching

          Techniques

Unit 7:Advanced Trees

- Binary Search Trees
  - Traversing a Binary Search Trees
  - Insertion of a node into a Binary Search Tree
  - Deletion of a node from a Binary Search Tree
- AVL Trees
  - Insertion of a node into an AVL Tree
  - Deletion of a node from and AVL Tree
  - AVL tree rotations
  - Applications of AVL Trees
- B-Trees
  - Operations on B-Trees
  - Applications of B-Trees
- Splay Trees
  - Splaying steps
  - Splaying Algorithm
- Red-Black trees
  - Properties of a Red-Black tree
- AA-Trees

Unit 8:Graphs

- Definitions
- Shortest Path Algorithms
  - Dijkstra's Algorithm
  - Graphs with Negative Edge costs
  - Acyclic Graphs
  - All Pairs Shortest Paths Algorithm
- Minimum cost Spanning Trees
  - Kruskal's Algorithm
  - Prims's Algorithm
  - Applications
- Breadth First Search
- Depth First Search
- Finding Strongly Connected Components

Unit 9:Searching and Sorting Techniques

- Linear Search
- Binary Search
- Applications
- Internal Sorting
  - Insertion Sort
  - Bubble Sort
  - Quick Sort
  - 2-way Merge Sot
  - Heap Sort
- Sorting on Several Keys
- External Sorting Algorithms

BLOCK 4: File Structures and Advanced Data Structures

Unit 10: Hashing

  - Introduction
  - Index Mapping
  - Collision Handling
  - Double Hashing
  - Load Factor and Rehashing

Unit 11: Advanced Data Structures
- Scapegoat Trees
- Tries
- Binary Tries
- X-Fast Tries
- Y-Fast Tries

Unit 12: File Structures
- Terminology
- File Organisation
- Sequential Files
  - Structure
  - Operations
  - Disadvantages
  - Areas of use
- Direct File Organisation
- Indexed Sequential File Organisation

MCSL-209   **Data Structures and Algorithms Lab**   **(2 Credits)**

Objectives:

Main objective of this laboratory course is to provide hands on exercises to the learners based data Structures and Algorithms course.

Lab Sessions:

- There will be 20 practicalsessions (3 hours each) of which 10 sessions will be on Data Structures Programming and 10 sessions will be on Algorithms
- The practice problems for all 20 sessions will be listed session-wise in the lab manual.

Block 1: Data Structures and Algorithms Lab
Section 1: Data Structures Lab
Section 2 : Algorithms Lab

MCSL-210   **Java and DBMS Lab**   **(2 Credits)**

Objective:

This laboratory course is based on two courses: Object Oriented Programming using Java and Database Management Systems.

Objectives:

Main objective of this laboratory course is to provide hands on exercises to the learners based on two courses: Object Oriented Programming using Java and Database Management Systems.

Lab Sessions:

- There will be 20 practical sessions (3 hours each) of which 10 sessions will be on Java Programming and 10 sessions will be on DBMS.
- The practice problems for all 20 sessions will be listed session-wise in the lab manual.

Block 1 : Java and DBMS Lab
Section 1: Java Programming
Section 2: Database Management Systems

BCS-012: Basic Mathematics   **4 Credits**

Objectives: The primary objective of this course is to introduce students some of the mathematics through which they can develop some mathematical maturity, that is enhance their ability to understand and create mathematical arguments. The secondary objective of this course is to prepare students for mathematical oriented courses in computer science such as discrete mathematics, database theory, analysis of algorithms etc.

BLOCK-1: Algebra I

Unit-1: Determinants Determinants of order 2 and 3, properties of determinants; evaluation of determinants. Area of triangles using determinants, cramer's rule.

Unit-2: Matrices-1 Definition, equality, addition and multiplication of matrices. Adjoint and inverse of a matrix. Solution of a system of linear equations – homogeneous and nonhomogeneous.

Unit-3: Matrices-2 Elementary row operations; rank of a matrix, reduction to normal form,Inverse of a matrix using elementary row operations.

Unit-4: Mathematical Induction Principle of mathematical induction 1 and 2.

BLOCK 2 : Algebra II

Unit 1: Sequence and Series Definition of sequence and series; A.P, G.P, H.P and A.G.P.,Idea of limit of a sequence.

Unit 2: Complex Number Complex number in the form of a+ib. Addition, multiplication, division of complex numbers. Conjugate and modulus of complex numbers. De Moivre's Theorem.

Unit 3: Equations Quadratic, cubic and biquadratic equations. Relationship between roots and co-efficient. Symmetric functions of roots.

Unit 4: Inequalities Solution of linear and quadratic inequalities.

BLOCK 3: Calculus (Without Trigonometry)

Unit 1: Differential Calculus Concept of limit and continuity; differentiation of the sum, difference, product and quotient of two functions, chain rule. Differentiation of parametric functions. 2nd order derivatives.

Unit 2: Simple Application of Differential Calculus Rate of change; monotoncity-increasing and decreasing; maxima and minima.

Unit 3: Integration Integration as an anti-derivative. Integration by substitution and by parts. Unit 4: Application of Integration Finding area under a curve. Rectification.

BLOCK 4: Vectors and Three-Dimensional Geometry

Unit 1: Vector-1 Vectors and scalars, magnitude and direction of a vector. Direction cosines/ratio of vectors. Addition of two vectors. Multiplication of a vector by a scalar. Position vector of a point and section formula.

Unit 2: Vector-2 Scalar (Dot) product of vectors, Vector (Cross) product of vectors. Scalar triple product and vector triple product.

Unit 3: Three & Dimensional Geometry-1 Introduction, Distance formula. Direction cosines/ratio of a line passing through two points. Equations of a line in different forms; angle between two lines; Coplanar and skew lines. Distance between skew lines.

Unit 4: Linear Programming Introduction, definition and related terminology such as constrains, objective function, optimization. Mathematical Formulation of LPP. Graphical method of solving LPP in two variables. Feasible and inferring solution (up to three non-trivial constraints).

5. EVALUATION SCHEME

Completion of the programme requires successful completion of both assignment component and the Term-end Examination component for each course in the programme. The total numbers of courses in this PGDCA programme are 10 and the total number of credits is 32. Evaluation for each course covers two aspects:

(a) Continuous evaluation through Assignment with a weightage of 30% (please refer to the table below). *Viva- voce is compulsory for all the Assignments for which 20 marks are allocated.*

(b) Term-end examination with a weightage of 70% (please refer to the table below).

Note: *A learner should not apply for appearing at the term-end examination of any course without getting registered for the same and that if s/he does so, her/his result would not be declared and the onus shall be on him.*

5.1 Assignments and Term - End Examination

The main purpose of assignments is to test student's comprehension of learning the materials they receive from the University and also to help them get through the courses by providing feedback to them. The information given in the printed course materials should be sufficient for answering the assignments. However, as Computer Science is an ever enhancing area, the students should make

an attempt and work with extra reading material easily available at the LSC / Regional Centre libraries or through websites for working on the assignments. This will enhance his/her learning capabilities. Mostly the assignments are designed in such a way as to help her/him concentrate mainly on the printed course material, exploit their personal experiences and apply the knowledge gained from various sources.

Assignments

There will be **only one assignment for each course worth 100 marks (weightage of 30%)**. The set of all the assignments for each semester are given in one booklet that you will get along with your course material as well as the same will be uploaded on the IGNOU's website also.

The table shown below provides the detailed marking scheme for the PGDCA courses.

Seme-ster	Course Code	Course Title	Credits	Continuous Evaluation Assignment (Weightage – 30%)		Term End Examination Theory OR Practicals* (for Lab courses only) (Weightage – 70%)		
				Max Marks	Min. Marks	Duration	Max. Marks	Min. Marks
I	MCS-201	Programming in C and Python	4	100	40	3	100	40
	MCS-202	Computer Organisation	4	100	40	3	100	40
	MCS-203	Operating Systems	4	100	40	3	100	40
	MCSL-204	WINDOWS and LINUX Lab	2	100	40	2	50	20
	MCSL-205	C and Python Lab	2	100	40	2	50	20
II	MCS-206	Object Oriented Programming Using Java	4	100	40	3	100	40

	MCS-207	Database Management Systems	4	100	40	3	100	40
	MCS-208	Data Structures and Algorithms	4	100	40	3	100	40
	MCSL-209	Data Structures and Algorithms Lab	2	100	40	2	50	20
	MCSL-210	DBMS and Java Lab	2	100	40	2	50	20

*   No practical examinations for the non-lab courses. Practical examination will be conducted for the lab courses only.
The letter 'L' in the course code represents the lab course. Pass in each and every section in the practical course of
Term End Practical Examination is compulsory in order to get it declared successful in the respective course.

All the assignments and Term-End Examinations will be scored on a **numerical marking scheme.** Any component that has not been attempted would be treated as having a score of zero marks. The requirement for passing would be at least **40% in continuous evaluation and 40% in the term-end examinations,** with an **overall average of 40% for a pass in the course. The viva voce is compulsory for the assignment evaluation**. For any course, in case, if a student submitted the assignment and not attended the viva-voce, then the assignment is treated as **not successfully completed** and would be marked as **ZERO.**

In order to be able to appear for the Term-End examination, it is a requirement that the student submit all the assignments according to the prescribed schedule. All students will be required to give an undertaking to this effect, and should it be later found that they had in fact not submitted the assignments as prescribed; the results for the Term-end examination will be treated as cancelled.

Viva-voce is compulsory for all the Assignments for which 20% are allocated.

Unfair means in attempting the assignments

If the learners copy the assignments, which is an important component of the ODL system, such assignments will be awarded "zero" and such students will be directed to re-attempt the fresh assignments pertaining to the next year which will indirectly delay the award of degree by a semester/ year.

Additional guidelines for Lab Course assignments and TEE

The following are the evaluation guidelines for the lab courses.

(i)   Evaluation of Assignments for Lab Courses

The assignments of lab courses consist of three parts:

- Continuous assessment of practical sessions (lab records) (total 40 marks),
- Assignment questions (total 40 marks)
- A combined comprehensive **viva-voce** (total 20 marks)

The marks allotment details for various lab courses are shown in the following table:

Course code	Continuous assessment of practical sessions lab records (40)	Assignment problems (40)	Combined Viva (20)	Total marks (100)
MCSL-204	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100
MCSL-205	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100
MCSL-209	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100
MCSL-210	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100

It is to be noted that minimum passing marks are overall (lab records + problems + viva) **40% in each assignment**.

(ii)   Evaluation of term-end practical exam for Lab Courses

The term-end examination of the practical courses consists of several sections. Each section will be evaluated separately. The viva-voce for each section will also be separate. The following table shows the details:

(Practical questions –80 % and Viva-voce – 20 %)

Course Code	Duration of term-end practical exam. (Each section gets equal time)	Term-end practical examination and viva-voce	
		Marks Section-1	Marks Section-2
MCSL-204 (2 credits)	2 hours	20 (P) +5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-205 (2 credits)	2 hours	20 (P) +5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-209 (2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-210 (2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks

P- problems given in the exam paper, V –viva-voce for that section.

A student needs to obtain a minimum of 40% in **each section** of the term-end practical examination for successful completion of that particular section. In case a student does not secure the minimum passing marks in a section, s/he needs to appear for the term-end practical examination again for that section only.

5.2 Instructions for Assignments

While answering Assignments, the following guidelines are required to be followed:

1. **Tips for assignments**

   The word limits for answering most of the questions are mentioned with them. If no word limit is prescribed, then assume it to be about 300 words. You will find it useful to keep the following points in mind:

   (i) **Planning:** Read the assignment carefully. Go through the units on which they are based. Make some points regarding each question and rearrange these in logical order.

   (ii) **Organisation:** Be a little more selective and analytical before drawing up a rough outline of your answer. In an essay-type question give adequate attention to your introduction and conclusion. The introduction must offer brief interpretation of the question and how you propose to develop it. The conclusion must summarize your response to the question. Make sure that your answer:

       (a) is logical and coherent;
       (b) has clear connection between sentences and paragraphs;
       (c) is written correctly giving adequate consideration to your expression, style and presentation;
       (d) does not exceed the number of words indicated (if any) in your questions.

   (iii) **Presentation:** Once you are satisfied with your answers, you can write down the final version for submission, writing each answer neatly and underlining the points you want to emphasize.

2. The following format is to be followed for submission of the assignment:

   The top of the first page of your response sheet for each assignment should look like this:

PROGRAMME TITLE : ....   ENROLMENT No. : ....

COURSE CODE : ....   NAME : ....

COURSE TITLE : ....   ADDRESS:..

ASSIGNMENT CODE : ....   SIGNATURE : ....

LSC : ....   DATE : ....

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3. Read instructions for submission of assignments given here. The assignments response sheets should be hand written. However the s/w coding, snapshots, test cases, etc. can be in the printed form. **Students should not reproduce their answers from the units sent to them by the University. If they reproduce from the units, they will get poor marks for the respective question**.

4. The students should write each assignment separately. All the assignments should not be written in continuity.

5. **The students should write the question number with each answer. Photocopy of the submitted assignment is to be retained by the student for his or her own record and future reference, if any.**

6. The students should use only A4 size paper for their response and tag all the pages carefully. Avoid using very thin paper. They should allow a 4-cm. margin on the left and at least 4 lines in between each answer. This may facilitate the evaluator to write useful comments on the margins at appropriate places.

7. **The students should not copy the assignments from others. If copying is noticed, the assignments of such students will be rejected, and disciplinary action will be taken against the students as per rules of the University.**

8. **The completed assignment response should be sent to the Coordinator of the LSC. Under no circumstances should they be sent to the SED Division or the School at Headquarters**, for evaluation. After submitting the assignment at the LSC in person, the students should get the acknowledgement from the Co-ordinator on the prescribed assignment-cum-acknowledgement card (**Form No. 1**); otherwise, the assignment response should be sent under certificate of posting through post. The students should get back evaluated assignments from their LSCs within one month of its submission for the feedback and for their future guidance.

9. In case the student has requested for a change of LSC, s/he should submit her/his assignments only to the original LSC until the University effects the change of LSC.

5.3   Guidelines Regarding the Submission of Assignments

1. It is compulsory for the students to submit all the prescribed assignments. They will not be allowed to appear for the term-end examination of a course if they do not submit the specified number of assignments in time for that course.

2. Whenever the students receive a set of assignments, they should check them immediately and ask for missing pages, if any, from Registrar (MPDD), IGNOU, Maidan Garhi, New Delhi-110 068 or the Co-ordinator of the LSC or else download them from the website.

3. The assignment responses should be complete in all respects. Before submission, the students should ensure that they have answered all the questions in all assignments. Incomplete answer sheets bring poor grades.

4. The Coordinator of the LSC has the right to reject the assignments received after the due date. Therefore, the students are advised to submit their assignments before the due date.

5. Students should enclose a self-addressed stamped assignment remittance-cum-acknowledgement card (**Form No. 1**) with each assignment response to ensure the delivery of assignments before the last dates prescribed for submission of assignments.

6. In case any student fails to submit the assignments or fails to score minimum qualifying marks, s/he has to wait for fresh assignments meant for the current batch of students. The request for the new assignments in the prescribed form (**Form No. 2**) is to be addressed to the Registrar, MPDD, Indira Gandhi National Open University, Maidan Garhi, New Delhi-110068.

7. For their own record, students should retain a photocopy of all the assignment responses, which they submit to the Co-ordinator of their LSC. If they do not get back their duly

evaluated assignment within a month after submission, they should try to get it from their LSC personally. This may help them to improve upon future assignments.

8. As per the University norms, once the student's scores pass marks in an assignment, they can not re-submit it for improvement of marks.

9. Assignments are not subject to re-evaluation except for factual errors, if any. The discrepancy noticed by the students in the evaluated assignments should be brought to the notice of the Co-ordinator of the LSC, so that he forwards the correct score to the SED at the Headquarters.

10 The students should not enclose or express doubts for clarification, if any, along with the assignments. They should send their doubts in a separate cover to the Registrar, SED, Indira Gandhi National Open University, Maidan Garhi, New Delhi - 110 068. While doing so they should give their complete Enrolment number, name, address, programme code.

Note : **Please submit your Assignments on or before the due date at your Study Centre.**

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11. In case of not successfully completed or missed; the assignments should be demanded only if your registration for that course is valid.

12. Assignments should not be demanded to improve your score if you have secured minimum qualifying score in a course.

13. Please do not submit your assignment responses twice either at the same LSC or at different LSCs for evaluation.

INSTRUCTIONS FOR ASSIGNMENTS

1. Assignments should be submitted, if your registration for that course (Subject) is valid.

2. Please ensure that you have mentioned your correct Enrolment No. (it consists of 9 digits), Name, Course Code/ Title, Name of semester/year, wherever applicable and LSC Code on your assignment responses before submitting it to concerned LSC.

3. Submission of assignments within due dates is prerequisite for appearing in the term-end examination. You are, therefore, advised to submit your ASSIGNMENTS at your LSC within the prescribed dates. Assignment received after due dates will be summarily rejected.

4. You can appear in term-end examination or submit only minimum required number of assignments if you fail to secure over-all qualifying grade in the course (subject).

5. Assignments should not be submitted to improve your score if you have secured minimum qualifying score in a course (subject).

6. Please do not submit your assignment responses twice either at the same LSC or at different LSCs for evaluation.

5.4 General Guidelines Regarding the Term-End Examination

1. To be eligible to appear the Term-end Examination in any course, the students are required to fulfil the following conditions:

   a) registration for the courses, in which they wish to appear is valid,
   b) they should have opted and pursued the prescribed courses
   c) minimum time to pursue these courses is elapsed
   d) have submitted the required number of assignment(s), if any.
   e) have submitted online examination form of IGNOU and have paid the requisite examination fees.

2. The University conducts Term-end Examination twice a year, in June and December. The student can take the examination only after the minimum period prescribed for the course of study has elapsed.

3. Examination schedule indicating the date and time of examination for each course is sent to all the Regional Centres/ LSCs in advance. The same is also notified through IGNOU Newsletter from time to time and displayed on the website of IGNOU www.ignou.ac.in.

4. The online examination form is to be filled up from IGNOU website, in general, as per the following schedule (You MUST visit IGNOU website for actual cutoff dates. The details of late fee are displayed on the website. For June 2019 Tern-end examination it is INR 1000/-):

Term-End Examination	Dates for filling up examination form	
	(without Late Fee)	(With Late Fee Rs. 1000/-)
June Term-End Examination	1st March to 31st March	1st April to 20th April
December Term-End Examination	1st September to 30th September	1st October to 20th October

You are required to pay examination fee per course at the time of filling up of the form. For Term-end Examination this fee is @150/- per course for theory courses and @150/- per course for practical courses. You can pay online using Credit Card / Debit Card /Net Banking while filling up the form. It may also be noted that in case, examination fee needs to be returned to student due to technical reasons, the fee will be refunded to the same account (Credit card/ Debit card/ Net Banking) from which the payment was made.

The link to online Examination form, in general, is put on the HOME page of IGNOU website. For example, For term-end examination, you can fill up the form (provided you are filling up the form as per cutoff dates) from the link:

https://exam.ignou.ac.in/

YOU MUST READ and FOLLOW all the instructions very carefully. You can save these instructions for any future reference. These instructions relates to:

- Dates for the Submission of Online Term end Examination form

- Prerequisite for the submission of the Term End Examination Form:

- Process to submit Term End Examination Form

- Examination fee and Mode of Payment

- Un-successful Submission of Exam Form

- Related to Refund excess Examination Fee

- Hall Ticket for Term End Examination
- Contact Details

Some Important Guidelines and instructions for submission of online examination form (Some of these guidelines may change, therefore, you are advised to read guidelines for filling up online Term-end Examination form)

1. Please ensure that you have already submitted the assignments as applicable for the courses you are filling in the Examination Form. You are required to pay examination fee for every course of theory as well as practical.

2. Students are requested to check the result status before filling examination form.

3. Select and enter Programme code and Examination Centre Code from the options available. If the centre opted by the student is not activated as examination centre or not allotted for any other reason, alternative examination centre will be allotted.

4. Select courses carefully. Courses for theory as well as practical need to be selected separately from the list appearing on the screen.

5. Students will be allowed to appear in Term-end Examination for the course(s) for which registration is valid and not time-barred and assignment(s) is/are submitted. Examination Fee once submitted will nither be refunded nor adjusted.

6. Students should carry their **Identity Card and Hall Ticket** (download hall ticket from IGNOU website indicating Centre & Date of Examination) to the Examination Centre.

7. In case a student fails to receive the intimation slip/Hall ticket may please contact at SED (Exam-II) termendexam@ignou.ac.in

8. Students must carry IGNOU Identity-Card in the Examination Hall for writing Examination. In case, students do not have IGNOU Identity card due to various reasons, they must get it issued (i.e. duplicate copy of IGNOU Identity card) from Regional Centre concerned well before the start of the Examination. Students are required to contact the RC in person (by post) and get the duplicate Identity card for attending Examination.

9. The students will be entitled to appear for the examination only at the examination centre allotted to them and **NOT** at any other centre without specific permission from the University. The Examination Centre once opted for in a form shall not be changed.

10. Although all efforts will be made to declare the results in time, there will be no binding on the University to declare the results of the last examination before the commencement of next examination. The students may, therefore, fill up the examination form without necessarily waiting for the result. In case the student gets result after filling up the exam form, s/he should not re-appear in the course qualified by her/ him with a view to improve the qualified score.

11. Students who fail to complete the minimum required number of course(s) prescribed for the Programme within the allotted period of study shall cease to be on the rolls of this University for that programme till they re-enroll themselves, if they wish to do so. Such students are advised to get in touch with the Regional Director concerned.

12. **Obtaining Photocopy of Answer Scripts:** After the declaration of result, if the students are not satisfied with the marks awarded, they can request the University for Photocopy of Answer Scripts on payment of ₹ 100/- per course. The request for obtaining Photocopy of Answer Scripts by the student must be made within 45 days from the date of declaration of result to the Evaluation Centre concerned in the prescribed format along with the fee of ₹ 100/- per course in the form of Demand Draft in favour of IGNOU payable at the city where

submitting the request for Photocopy. Format is available on the IGNOU website: www.ignou.ac.in

13. **Early Declaration of Results:** In order to facilitate the students who have got offer of admission and or selected for employment etc and are required to produce marks-sheet/grade card by a specified given date may apply for early process of their answer-scripts and declaration of the results for this purpose. The students are required to apply in the specified format available on the University website with a fee of ₹ 1000/- per course through Bank Draft drawn in favour of IGNOU along with the attested photocopy of the offer of admission/employment offer. The students can submit their requests for early declaration before the commencement of the Term-end Examination i.e., before 1st June and 1st December respectively. The University in such cases will make arrangements for processing the answer-scripts and declare the results as a special case.

14. **Re-evaluation of Answer-script(s):** The University has replaced the scheme of rechecking with the re-evaluation where by the answer-scripts will be re-evaluated by another Evaluator in case the students are not satisfied with the marks/grades secured by them in Term-end Examination. Such students can apply for re-evaluation within one month from the date declaration i.e. the date on which the results are made available on the University Website on payment of ₹ 750/- per course in the prescribed application form available on the University Website. The better of the two courses or original marks/grades and re-evaluated marks/grades will be considered and the revised marks/grades shall be incorporated in the students' record as applicable and the revised grade card/marks sheet will be sent to the students within one month from the receipt of application. Re-evaluation is not permissible for Projects, Practical, Assignments and Seminars etc.

15. **Improvement of Division/Class:** Keeping the interest of students who have completed their Bachelors Degree and Masters Degree Programmes, but falling short of 2% marks for securing 1st Division/2nd Division the university has made a provision for allowing such students to improve their performance. The improvement is permissible only in theory papers and the students may apply for improvement of their performance on the prescribed application format along with a fee of ₹ 750/- per course through a Bank Draft drawn in favour of IGNOU payable at Delhi and submit the application and fee to the Registrar, SRE Division, IGNOU, Maidan Garhi, New Delhi. The improvement is not permitted to those students who have completed their maximum duration of the programme including the re-admission period has expired. The students will be given only one opportunity to improve the marks/grades and they can apply for improvement a maximum of 25% of the credits for successful completion of the respective programme. However, the sealing for the number of courses in which the student can improve is five courses. The better of the two examinations i.e., marks already awarded and the marks secured in the improvement examination will be considered.

16. There is no reevaluation of Assignments, Practical examination & Project reports.

6. OTHER USEFUL INFORMATION

6.1 Reservation of Seats

The University provides reservation of seats for Scheduled Castes, Scheduled Tribes and Physically Handicapped students as per the Government of India rules.

6.2 Scholarships

Reserved Categories, viz., Scheduled Castes, Scheduled Tribes and Physically Handicapped students etc. have to pay the fee at the time of admission to the University along with other students. Physically Handicapped students admitted to IGNOU are eligible for Government of India scholarships. They are advised to collect scholarship forms from the respective State Government Directorate of Social Welfare or Office of the Social Welfare Officer and submit the filled-in forms to them **through the Regional Director of IGNOU concerned.**

Similarly, SC/ST students have to submit their scholarship forms to the respective State Directorate of Social Welfare or Office of the Social Welfare Officer, **through the Regional Director of IGNOU concerned for suitable reimbursement.**

6.3   Change / Correction of Address

There is a proforma **(Form No. 6)** for change/correction of address available in this programme guide. This form duly filled in is to be submitted to the **Regional Director concerned**. Students are advised not to write letters to any other officer in the University in this regard. Normally, it takes 4-6 weeks to effect the change. Therefore, the students are advised to make their own arrangements to redirect the mail to the changed address during this period.

6.4   Change of Regional Centre and LSC

Counselling facilities are not available for all the programmes at all the LSCs. As such, students are advised to make sure that counselling facilities are available, for the subject s/he has chosen, at the new centre opted for. Request for change of LSC is acceded to subject to availability of seats for the programme at the new centre asked for only on compelling grounds. Students are required to get a NOC from the Regional center where they are willing to get themselves transferred in view of the practical sessions involved in PGDCA.

When a student wants transfer from one region to another, s/he has to write to that effect to the Regional Centre from where s/he is seeking a transfer marking copies to the Regional Centre where s/he would like to be transferred to and also to Registrar, Student Registration Division (SRD) , IGNOU, Maidan Garhi, New Delhi-110 068. Further, s/he has to obtain a certificate from the Co-ordinator of the LSC from where s/he is seeking transfer from, regarding the number of assignments submitted. The Regional Director from where the student is seeking the transfer will transfer all records including details of fee payment to the Regional Centre where the student is going, under intimation to the Registrar, SRD and the student. The transfer will be permitted only if seats are available at the new LSC.

6.5   Procurement of Official Transcripts

The University provides the facility of obtaining official transcripts on request, made by the learners on plain paper addressed to the Registrar, Student Evaluation Division (SED), Block 12, IGNOU, Maidan Garhi, New Delhi-110068.

> **For Indian Students:**
> 1) Rs. 300/- for each transcript, if to be sent to the Student/Institute within India
> 2) Rs. 500/- for each transcript, if to be sent to the Student/Institute out of India

> For SAARC Countries Students:
> Rs. 1200/- for each transcript, if to be sent to the Student/Institute of SAARC Countries

> For Non-SAARC Countries Students:
> $ 120 for each transcript if to be sent to the Student/Institute of Non-SAARC Countries
> Format is available in the Programme Guide/IGNOU website: www.ignou.ac.in

6.6   Duplicate Grade Card

The learner can apply for obtaining duplicate Grade Card in case the same has been lost/misplaced/damaged, by making a request in prescribed format along with a fee of Rs. 200/- in the form of DD drawn in favour of IGNOU payable at New Delhi. Format is available in the Programme Guide or IGNOU website: www.ignou.ac.in . The request may be made to the Registrar, Student Evaluation Division, IGNOU, Maidan Garhi, New Delhi-110068

6.7   Study Materials for Your Programme of Study

[1]   After confirmation of admission, study materials are dispatched to the student's registered address by speed/ registered post.
[2]   Keep checking status of dispatch of study materials on the IGNOU website using the weblink,www.ignou.ac.in/ignou/aboutignou/division/mpdd/material, provided by MPDD.
[3]   You should visit Learner Support Centre (LSC) concerned with ID card for schedule of classes/lab
[4]   If you not received Study Material then visit Regional Centre concerned only or write to mpdd@ignou.ac.in

6.8 Disputes on Admission and other University Matters

In case of any dispute, the place of jurisdiction for filing of a suit/plaint/petition will be only at New Delhi / Delhi.

7. SOME USEFUL ADDRESSES

For your information, the following officers deal with different educational aspects:

(i) Student Registration Related issues	Registrar, SRD, Indira Gandhi National Open University , Maidan Garhi, New Delhi -110068, 011-29532741 (SRD), 1302/1316 (SRD), Email: : registrarsrd@ignou.ac.in
(ii) Exam Centres, Results, Re-checking of answer-scripts, Discrepancies in Result, marks update, etc.	Registrar, SED, Indira Gandhi National Open University , Maidan Garhi, New Delhi -110068, Phone No: 011-29535828/2482 (SED), 011-29572204/2205(SED), FAX No.011-29534429 068
(iii) Study materials and Assignments, Admission , Fees, Scholarship,Change of Address/LSC/Regional Centre, Change of Course/Programme, Isssue of Bonafide Certificate, Migration Certificate, Duplicate Identity Card	Regional Director of the Regional Centre concerned.
(iv) Academic Matters	PGDCA Programme Coordinator SOCIS, C-Block, New Academic Complex IGNOU, Maidan Garhi, New Delhi - 110 068 Phone: 011-29572902 Email: pgdca@ignou.ac.in
(v) Administrative and counselling matters missing score of TMAs/Project assignments/Practical assignments, Assessment Sheets	Co-coordinator of your LSC/Regional Director of the Regional Centre concerned
(vi) Issue of Degree/ Diploma/ Certificate, Dispatch of returned Degrees, Verification of Degree	Dy. Registrar (Exam-I) Examination –I Indira Gandhi National Open University, Maidan Garhi New Delhi -110068, Phone No.011-29535438 011-29572224/2213 e-mail exam1@ignou.ac.in
(vii) Issue of Provisional Certificates and Grade Cards	Dy Registrar (Exam-III) Phone No: 011-29536743; Intercom No. 2201
(ix) Declaration of pending results of TEE, Incorporation of practical marks, Verification of provisional certificate and grade card, Issue of transcripts	Dy. Registrar (Exam-III) Phone No: 011-29536103/6743 011-29572201/2211
(x) Non incorporation of assignment marks	Assistant Registrar (Assignment) Phone No: 011-29532294 Intercom No. 1312/1319/1325 E-mail: assignments@ignou.ac.in
(xi) Online students grievances Portal	http://igram.ignou.ac.in/
(xii) Students' General Enquiries	Student Support Centre

	Indira Gandhi National Open University, Maidan Garhi New Delhi -110068, Phone: 011-29535714, 29572512, 29572514, 29533869 and 29533870 e-mail : ssc@ignou.ac.in

Telephone numbers of the Divisions/ Schools are also provided on the website under the "Contact Us" option. Students are advised to be in touch with their LSCs for advance/timely/day-to-day information or visit the website with URL www.ignou.ac.in

8.   OLD QUESTION PAPERS

If you want to download the previous year's question papers, download them from the option "For Students" then select "download" and select the "question papers" on the home page of University's website with the URL www.ignou.ac.in.

9.   LINKS TO FORMS AND ENCLOSURES

In this section, we are enclosing the IGNOU website links to various forms, which are useful for you. Whenever you have to correspond with the university, please download the form from the Website and fill it carefully and send as per instructions therein. The detailed instructions for all these-forms are provided in form itself.

Note: You must Download the Forms from the Website

Forms and Enclosures and Useful links

- *PGDCA Page*
- *Registration Details*
- *Application Form for reimbursement of Programme Fee to SC/ST Students*
- *Change of Address / LSC (Form No. 1)*
- *Assignments Remittance-Cum-Acknowledgement Card (Form No.2)*
- *Non receipt of Study Material(s)/ Assignment(s) (Form No.3)*
- *Re-Registration Form for PGDCA (Form No. 4)*
- *Re-admission form for PGDCA programme (Form No.5)*
- *Term end Examination link (Form No.6)*
- *Offline Term end Examination (Form No.7)*
- *Application form for early declaration of result (Form 8)*
- *Application Form for obtaining photocopy of the answer script (Form No.9)*
- *Re-evaluation of Answer script (Form No.10)*
- *Application form for improvement in Division/Class (Form No.11)*
- *Application Form for obtaining Duplicate Grade Card / Mark-sheet (Form No.12)*
- *Application form for issue of Official Transcript (Form 13)*

Some Useful links

PGDCA Page http://www.ignou.ac.in/ignou/aboutignou/school/socis/programmes

Registration Details http://admission.ignou.ac.in/changeadmdata/admissionstatusnew.asp

Application Form for reimbursement of Programme Fee to SC/ST Students

http://ignou.ac.in/userfiles/Application%20form%20for%20Reimbursement%20of%20fee.pdf

Assignment Remittance cum Acknowledgement
(It is attached on page No. 71)

Link to latest assignments
https://webservices.ignou.ac.in/assignments/

Re-registration
https://onlinerr.ignou.ac.in/

Last date of Re-Registration is announced on the website. In general, the re-admission is to be done 2-3 months prior to the start of session. For example, the last date of re-registration for session starting from July 2019 is 31 May 2019. Similarly, the last date for session starting January, 2020 may be 30 Nov, 2019. Offline re-registration form, if needed, may be downloaded from IGNOU website.

Term end Examination and related links

Link to Term End Examination
http://www.ignou.ac.in/userfiles/TEE%20FORM.pdf

Offline Term end Examination form
http://www.ignou.ac.in/userfiles/TEE%20FORM.pdf

Form 1
Change of Address/Study center.

Form 2

Application Form for Issue of Provisional Certificate

Form 3
APPLICATION FORM FOR RE-EVALUATION OF ANSWER SCRIPT
http://www.ignou.ac.in/userfiles/Application%20form%20for%20Reevaluation%20of%20Answer%20Scripts(1).pdf

Form 4
APPLICATION FORM FOR OBTAINING DUPLICATE GRADE CARD/MARK-SHEET
http://www.ignou.ac.in/userfiles/Duplicate%20mark%20sheet%20form.pdf

Form 5
APPLICATION FORM FOR ISSUE OF MIGRATION CERTIFICATE
http://ignou.ac.in/userfiles/Migration%20Certificate.pdf

Form 6
FORM OF APPLICATION FOR ISSUE OF A DUPLICATE COPY OF UNIVERSITY DIPLOMA/DEGREE/CERTIFICATE
http://www.ignou.ac.in/userfiles/Duplicate%20Degree,Diploma%20and%20Certificate%20Form.pdf

Form 7
APPLICATION FORM FOR IMPROVEMENT IN DIVISION/CLASS
http://www.ignou.ac.in/userfiles/Improvement%20form.pdf

Form 8
APPLICATION FORM FOR EARLY DECLARATION OF RESULT OF TERM-END EXAMINATION
http://www.ignou.ac.in/userfiles/APPLICATION%20FORM%20FOR%20EARLY%20DECLARATION%20OF%20RESULT%20OF%20TERM-END%20EXAMINATION.pdf

Form 9
APPLICATION FORM FOR OBTAINING PHOTOCOPY OF THE ANSWER SCRIPT
http://www.ignou.ac.in/userfiles/Application%20form%20for%20Reevaluation%20of%20Answer%20Scripts(1).pdf

Form 10
APPLICATION FORM FOR ISSUE OF OFFICIAL TRANSCRIPT
http://www.ignou.ac.in/userfiles/Official%20Transcript%20form.pdf

Form 11
Application for Change of Address
http://www.ignou.ac.in/upload/address_change_name_correction.pdf

Form 12
Offline TEE form

Form 13
ASSIGNMENTS REMITTANCE -CUM-ACKNOWLEDGEMENT CARD

Form 1

Change of Address/Study Center

(For Change of Address, send it duly filled-in to the concerned Regional Director, who will forward it to the Registrar (SED) and Registrar (SRD), Maidan Garhi, New Delhi after verification)

Application for Change of Address

Date: _____

To

The Regional Director
IGNOU Regional Centre _____

Enrolment No._____

Programme_____

Name (in caps)_____

1. DETAILS FOR CHANGE/CORRECTION OF MAILING ADDRESS

New Address   **Old Address**

_____   _____

_____   _____

_____   _____

City_____Pin_____   City_____Pin_____

_____
Signature of the Student

Please retain a photocopy of any matter that you submit to the University.

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
(SED)
Maidan Garhi, New Delhi-110068

APPLICATION FORM FOR ISSUE OF PROVISIONAL CERTIFICATE

Enrolment No. ☐☐☐☐☐☐☐☐☐

Programme Title ....

Regional Centre ....

Name : ....

Father's Name ....

Month and year of last
examination in which you
have completed the Programme ....

Address:...

....

....

(Please Enclose a Copy of Your complete grade card).

Filled in Application Form should be sent to:

Registrar (SED)
IGNOU
Maidan Garhi,
New Delhi-110 068

Date ....
                                            Signature

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
Student Evaluation Division

APPLICATION FORM FOR RE-EVALUATION OF ANSWER SCRIPT

1. Name:……………………………………………………………………………….

2. Programme: [   ]   Enrolment No. [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

3. Address: …………………………………………………………………………...

   …………………………………………………………………………..

   PIN: [ ][ ][ ][ ][ ][ ]

4. Contact No: (Mobile No.)…………………………Landline No:…………………………

5. Month and Year of the Exam:…………………………………………………….

6. Examination Centre Code [   ] :

7. Address of the Examination Centre :……………………………………….......

   …………………………………………………………………………………

8. Courses, in which   COURSE CODE   MARKS/GRADE OBTAINED
   Re-evaluation is sought

   …………………..   ……………………………..

   …………………..   ……………………………...

   …………………..   ……………………………...

   …………………..   ……………………………..

9. Fee Details:

   (The fee for Re-evaluation of answer script is ₹ 750/-per course for Indian Students & ₹ 1200/- for SAARC Countries Students and $75 for Non-SAARC Countries Students, which is to be paid through demand draft drawn in favour of 'IGNOU' payable at the City of Evaluation Centre)

   No. of Course(s) …………………..X ₹ 750/-   =   Total Amount :…………………………

   Demand Draft No. ……………………………   Date …………………………......…

   Issuing Bank …………………………………………………..……

   Date: …………………   Signature of the student

RULES & REGULATIONS FOR RE-EVALUATION OF ANSWER SCRIPTS

1. The request for re-evaluation by the student must be made within one month of declaration of his/her result.
2. The date of declaration of result will be calculated from the date on which the result(s) are placed on the IGNOU website.
3. After re-evaluation, the better of the two scores of original marks/grade and marks/grade after reevaluation will be considered.
4. The revised marks/grade after re-evaluation shall be communicated to the student on receipt of reevaluation result and result of re-evaluation will also made available on the IGNOU website at www.ignou.ac.in. The minimum time required for re-evaluation shall be 30 days from the date of receipt of application.
5. Re-evaluation is permissible in TEE only and not in the Project/Dissertation, Practicals / Lab courses, Workshops, Assignments & Seminar etc.
6. On the top of the envelope containing the prescribed application form, please mention 'APPLICATION FORM FOR RE-EVALUATION OF ANSWER SCRIPTS'
7. The application form duly filled-in may be send to the following address except CPE* & DPE* programmers.
8. Application form must reach within the prescribed dates at the following address:-

Sl. No.	Address of Evaluation Centre	Jurisdiction of Evaluation Centre
1.	Regional Director, IGNOU Regional Evaluation Centre, 3 rd Floor, Sanchi Complex, Shivaji Nagar, Bhopal-462016 Madhya Pradesh	All Examination Centres within Bhopal, Jabalpur, Raipur, Ranchi, Patna, Darbhanga, Bhagalpur, Jodhpur and Jaipur
2.	Regional Director , IGNOU Regional Evaluation Centre, C/1, Institutional Area, Bhubaneswar-751013 Odisha	All Examination Centres within Bhubaneswar, Koraput, Kolkata, Deoghar, Siliguri, Raghunathganj, Vishkhapatnam, Vijayawada, Hyderabad
3.	Dy. Registrar IGNOU Regional Evaluation Centre-Delhi Block-5, IGNOU, Maidan Garhi, New Delhi-110068 Ph.- 011-29533565, 011-29571501	All Examination Centres within Delhi-1, Delhi-2, Delhi-3, All Schools and Divisions, Centres, Units & Institutes at Headquarters, International Division and answer scripts received from other Evaluation Centres/sources, if any.
4.	Deputy Registrar, IGNOU Regional Evaluation Centre, IGNOU Complex, Kaloor PO Ernakulam Distt, Kochi-682017 Kerala Ph.- 0484-2337028, 2337038	All Examination Centres within Kochi, Trivandrum, Vatakara, Chennai, Madurai, Banglore, Bijapur, Panaji, Port Blair, Mumbai, Pune, Nagpur, Rajkot, Ahmedabad
5.	Dy. Registrar IGNOU Regional Evaluation Centre-Lucknow IInd Floor, 5 C / INS-1, Sector-5, Vrindavan Yojana , Telibagh, Lucknow –226029 Ph.-0522-2442825	All Examination Centres within Lucknow, Varanasi, Aligarh, Dehradun, Noida, Karnal, Chandigarh, Khanna, Shimla, Jammu, Srinagar
6.	In-Charge IGNOU Regional Evaluation CentreShillong, IGNOU Regional Centre, NEHU Campus, Umshing, Mawkynroh, Shillong-793022 Meghalaya Ph.- 0364-2550130	All Examination Centres within Shillong, Guwahati, Jorhat, Itanagar, Imphal, Agartala, Gangtok, Kohima, Aizwal

* For the revaluation of the answer script(s) of CPE and DPE Programmes, the application form may be sent to the Regional Centre concerned.

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Form No.4

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI-110068

APPLICATION FORM FOR OBTAINING DUPLICATE GRADE CARD/MARK-SHEET

Name : ....

Enrolment No. ☐☐☐☐☐☐☐☐☐

CompleteAddress:..

....

....

PIN : ☐☐☐☐☐☐

Contact No: (Mobile No.) ……………………………… Landline No: ……………………………………

Programme ....

Month and Year of the Exam : ....

Centre from where appeared at
last examination : ....

Bank Draft/IPO No. .... Dated ....
for ₹ 200 in favour of IGNOU, New Delh...
in favour of "IGNOU" payable at New Delhi

....
Signature

Date : ....

Note : Fee for duplicate grade card is ₹ 200/- for Indian Students & ₹ 400/- for SAARC Countries
Students and $10 for Non-SAARC Countries Students. The duplicate grade card/mark sheet
will be sent by Registered post by the University.

The filled in form with the requisite fee is to be sent to:

Registrar (SED)
Indira Gandhi National Open University
Block 12, Maidan Garhi
New Delhi-110 068

(You are advised to use the photocopy of this proforma)

Form No.5

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
(To be submitted to the concerned Regional Director)

APPLICATION FORM FOR ISSUE OF MIGRATION CERTIFICATE

1. Name : ....

2. Father's Name: ....

3. Address:...

4. Particulars of last examination

Examination Passed (programme)	Year of Passing	Enrolment No.	Marks Obtained	Grades Obtained

5. Name of the Regional Centre and LSC to which the candidate attached

....

6. Name of the University to which the candidate wants to migrate

....

Draft Details

Amount Rs. …………………………….. D.D. No…………………………… Date…………………

Bank Name & ………………………….. Place of Issue …………………………………………………

---

1. I hereby declare that the information provided is correct to the best of my knowledge and I have paid all the fee due to the University.

2. I have not taken any migration certificate from the University before this.

3. I further certify that I have not enrolled with any other University/Institution after passing out from IGNOU up to this date.

4. **I also undertake that I am not enrolled in any other programme of IGNOU at present.**

5. In the event of any of the above information being found incorrect, the Certificate shall be liable for cancellation by the University.

Date : ....   Signature of the Applicant

(To be filled in by the Regional Centre/SE Division)

1.   The information furnished by Shri/Smt./Km. .... is correct as per Grade Card.

2.   He/She may be issued the Migration Certificate applied for ....

Date .... Dealing Assistant .... Section Officer ....

INSTRUCTIONS

1.   A fee of ₹ 500/- should be remitted by way of a Demand Draft drawn in favour of IGNOU and payable at the city of the Regional Centre or New Delhi, as the case may be.

2.   At the time of submission of the application for issue of Migration Certificate, the applicant should attach Xerox copy of consolidated Statement of Marks of provisional Certificate issued by this University (duly attested) for verification.

3.   Duplicate Migration Certificate can be issued on payment of ₹ 500/- only in case the same has been lost, destroyed or mutialted, on submission of an Affidavit drawn up on a non-judicial stamp paper of the value of ₹ 10/- to be sworn before a Migistrate on the following format.

AFFIDAVIT

"I, _____ son/daughter of _____ resident of

_____ hereby solemnly

declare that the Migration Certificate No. _____ dated _____ issued to me

_____ University has been lost and did not join any other

University on the basis of the same nor have I submitted the Migration Certificate for joining any other

University".

(DEPONENT)

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI-110068
FORM OF APPLICATION FOR ISSUE OF A DUPLICATE COPY OF UNIVERSITY DIPLOMA/DEGREE/CERTIFICATE

Note: For Instructions, please see reverse.

To
The Registrar
Student Evaluation Division
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110068

Received Rs. …………………

Bank Draft No………………..
                              Dealing Assistant
                              IGNOU

Sir,

I wish to have a duplicate copy of my Diploma/Degree/Certificate for the Programme…..............
Examination for the following reasons: ……………………………………………………………

The prescribed fee of ₹ 750.00 is submitted herewith.

The required particulars are given below:

Name of Candidate (in Block Letters in English): _____

(in Hindi) : _____

Father's Name (in Block Letters): _____

Programme : [_____]   Enrolment Number: [_____]

Contact No: (Mobile No.) _____ Landline No: _____

Examination Passed in Term End Examination – (June/December & year)

Result: _____Grade/Division _____

Name of the Study Centre   : _____

Name of the Regional Centre   : _____

& other particulars   : _____

Full Permanent Address of student : _____

I solmnly declare that the particulars given above are correct to the best of my knowledge.

                                        Yours faithfully.

                                   Signature of the Student
Postal Address: _____
                _____

I Certify that the above entires made by the applicant are correct.

                                   Signature of Regional Director
                                   With Stamp

Note: To be filled in duplicate, original copy will be forwarded by Regional Director to Registrar (SED) and duplicate copy to be retained by the Regional Director for reference.

INSTRUCTIONS TO CANDIDATES FOR ISSUE OF DUPLICATE COPY OF UNIVERSITY DEGREE/DIPLOMA/CERTIFICATE

1. Fee for issuing a duplicate (a) Diploma (b) Degree & (c) Certificate:-

   (i) ₹ 750/- for Indian Students

   (ii) ₹ 1500/- for SAARC Countries Students

   (iii) $50 for Non-SAARC Countries Students

(THE REQUISITE FEE IS REQUIRED TO BE PAID THROUGH DEMAND DRAFT DRAWN IN FAVOUR OF 'IGNOU' PAYABLE AT NEW DELHI')

2. The form should be filled in duplicate legibly and signed by the candidate

3. The form should be submitted through the Regional Director of the concerned Regional Centre through which the candidate appeared at the said examination, and duplicate copy will be sent through the Regional Director concerned.

4. A duplicate copy of the Diploma, Degree or Certificate will be issued on submission of an affidavit signed by a First Class Magistrate together with an attested copy of the F.I.R. lodged with the nearest Police Station to this effect by the candidate on the grounds that either the original Diploma, Degree or Certificate has been irrecoverably lost destroyed or defaced and on payment of the fee prescribed.

5. In very special cases subsequent copies of the Diploma, Degree or Certificate may be issued for not more than four times, on submission of an affidavit signed and certified by a First Class Magistrate to the effect that the Diploma, Degree or Certificate issued previously by the University has been lost or destroyed, and on payment of the fee as prescribed for the issue of duplicate copy.

FORM FOR AFFIDAVIT TO BE EXECUTED ON A NON-JUDICIAL STAMP PAPER OF THE VALUE OF ₹ 10/- BEFORE A FIRST CLASS MAGISTRATE

I _____ Son/Daughter of Shri _____ do hereby solemnly declare that the original Degree Certificate dated _____ issued to me by the Registrar, Student Registration & Evaluation Division, Indira Gandhi National Open University, Maidan Garhi-110068 on my having passed the _____ examination in _____ _____ under University Enrolment No. _____ has been lost/destroyed. I have filed an F.I.R. with _____ Police Station_____ and a

copy of the same duly attested by a Gazetted Officer/First Class Magistrate is appended hereto.

I also undertake that if my Original Diploma/Degree/Certificate which has been lost is put to any unfair use by the person who may lay hands on it. I shall stand for the damages which may accrue from such use.

<div align="right">

Deponent

Signature_____

Address _____
</div>

Verification

Verified _____ this _____ day of _____20 that the contents of my affidavit are true to the best of my knowledge.

<div align="right">

Deponent
</div>

SWORN BEFORE ME

Signature   _____
Designation _____
Office Seal _____

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
STUDENT EVALUATION DIVISION

Form No.7

APPLICATION FORM FOR IMPROVEMENT IN DIVISION/CLASS

(Rules & regulations are mentioned on the reverse side of this form. Please go through them carefully before filling up the form).

Prescribed dates for submission of form: 1st to 30th April for June Term-end Exam.
1st to 31st October for December Term-end Exam.

1. Name: ....

2. Programme:……………………………   Enrolment No:……………………...........

3. Address: ....

    ....

    ....   Pin | | | | | |

4. Contact No: (Mobile No.)……………………………Landline No:……………………………………

5. Term-end examination, in which programme completed (June and December & year):.................

6. Total marks/Overall point grade obtained   Percentage obtained

    ....

    (Please enclosed photocopy of the statement of marks/grades card)

6. Courses(s), in which improvement is sought:

COURSE CODE	COURSE CODE
1. ————————————	4. ———————————————---
2. ————————————	5. ———————————————
3. ————————————	

6. **Fee details:**

    (The fee for Improvement in Division/Class is ₹ 750/- per course for Indian Students & ₹ 2000/- for SAARC Countries Students and $60 for Non-SAARC Countries Students, which is to be paid through demand draft drawn in favour of "IGNOU" payable at New Delhi)

    No. of Course(s): ……………….…… X ₹ 750/-=   Total Amount: ....

    Demand Draft No.: ………………………   Date: ……....................................

    Issuing Bank: ………………………………………………………….......................

7. Term-end examination, in which you wish to appear:- June/December 20……………………

8. Examination centre details, where you wish to appear in term-end examination:-

    Exam. Centre Code………………   City/Town ....

    ....

UNDERTAKING

I hereby undertake that I shall abide by the rules & regulations prescribed by the University for improvement in Division/Class

Date:...........................   Signature…………………..

Place: ………………...   Name:…………………...

RULES & REGULATION FOR IMPROVEMENT IN DIVISION/CLASS

1. The improvement of marks/grades is applicable only for the Bachelor's/Master's Degree Programmes, who have completed the programme. The eligibility is as under:-

    a) The students of Bachelor's/Master's Degree Programmes who fall short of 2% marks to secure 2nd and 1st division.
    b) The students of Master's Degree Programmes only, who fall short of 2% marks to secure overall 55% marks.

2. Only one opportunity will be given to improve the marks/grade.

3. The improvement is permissible only in theory papers. No improvement is permissible in Practicals/Lab courses, Projects, Workshops and Assignments etc.

4. Under the Provision of improvement, a maximum of 25% of the maximum credits required for successful completion of a programme shall be permitted.

5. Students wishing to improve the marks will have to apply within six months from the date of issue of final statement of marks/grade card to them, subject to the condition that their registration for the programme/ course being applied for improvement, is valid till the next term-end examination in which they wish to appear for improvement.

6. No student will be permitted to improve if maximum duration to complete the programme, including the re-admission period, has expired.

7. After appearing in the examination for improvement, better of the two examinations, i.e. marks/grade already awarded and the marks/grade secured in the improvement examination will be considered.

8. In case of improvement, the month and year of completion of the programme will be changed to the Term-end examination, in which students appeared for improvement.

9. Students will be permitted for improvement of marks/grades provided the examination for the particular course, in which they wish to improve, is being conducted by the University at that time.

10. On the top of the envelope containing the prescribed application form, **Please mention**

    "APPLICATION FORM FOR IMPROVEMENT IN DIVISION/CLASS.

11. Application form must reach within the prescribed dates at the following address:-

The Registrar,
Student Evaluation Division,
Indira Gandhi National Open University,
Maidan Garhi,
New Delhi-110068

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
STUDENT EVALUATION DIVISION

APPLICATION FORM FOR EARLY DECLARATION OF RESULT OF TERM-END EXAMINATION

(Rules & regulations are mentioned on the reverse side of this form. Please go through them carefully before filling up the form).

1. Name : ....

2. Programme: [   ]   Enrolment No: [   ][   ][   ][   ][   ][   ][   ][   ][   ]

3. Address: ....
   ..
   .... Pin [   ][   ][   ][   ][   ]

4. Contact No: (Mobile No.)…………………………….Landline No:…………………………………

5. Reason for early declaration of result:...
   ....
   .
   (Enclose a copy of the documentary evidence specifying the reason for early declaration)

6. Courses(s) detail for early evaluation:-

S. No.	Course Code	Date of Examination
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____

7. Exam. Centre details, from where you have to appear/appeared at Term-end Examination:-

   Exam. Centre Code: [   ]

   Address of Exam. Centre: _____

   _____

7. **Fee detail:**

   (The fee for early declaration of result is ₹ 1000/- per course for Indian Students & ₹ 1200/- for SAARC Countries Students and $50 for Non-SAARC Countries Students, which is to be paid through demand draft drawn in favour of 'IGNOU' payable at the City of Evaluation Centre)

   No. of Course(s): …………….…… X ₹ 1000/- = Total Amount: …...................................

   Demand Draft No.: ………………………… Date: ……...

   Issuing Bank: …………………………………………………………….........................

   Date:............................ **(Signature of the student)**

RULES & REGULATIONS FOR EARLY DECLARATION OF RESULTS

1. Request for early declaration of results will be entertained for final semester/year or maximum of 4 backlog courses only, subject to the following conditions:-

   i) The student has been selected for higher study/employment and statement of marks/grade card is required to be produced to the institute by a particular date, which is before the prescribed dates of declaration of the University's results.

   ii) The student has completed all the other prescribed components except the term-end examination of the courses, for which early evaluation has been sought.

2. Application for early declaration, for the reasons such as to apply for recruitment/higher study/post and promotion purpose etc. will not be entertained.

3. Application without enclosing documentary evidence specifying the reason for early declaration will not be entertained.

4. Application form must reach at the following address before the date of the examination for the course (s) for which early evaluation is sought:-

Sl.No.	Address of Evaluation Centre	Jurisdiction of Evaluation Centre
1.	Regional Director, IGNOU Regional Evaluation Centre, 3 rd Floor, Sanchi Complex, Shivaji Nagar, Bhopal-462016 Madhya Pradesh	All Examination Centres within Bhopal, Jabalpur, Raipur, Ranchi, Patna, Darbhanga, Bhagalpur, Jodhpur and Jaipur
2.	Regional Director , IGNOU Regional Evaluation Centre, C/1, Institutional Area, Bhubaneswar-751013 Odisha	All Examination Centres within Bhubaneswar, Koraput, Kolkata, Deoghar, Siliguri, Raghunathganj, Vishkhapatnam, Vijayawada, Hyderabad
3.	Dy. Registrar IGNOU Regional Evaluation Centre-Delhi Block-5, IGNOU, Maidan Garhi, New Delhi-110068 Ph.- 011-29553565, 011-29571501	All Examination Centres within Delhi-1, Delhi-2, Delhi-3, All Schools and Divisions, Centres, Units & Institutes at Headquarters, International Division and answer scripts received from other Evaluation Centres/sources, if any.
4.	Deputy Registrar, IGNOU Regional Evaluation Centre, IGNOU Complex, Kaloor PO Ernakulam Distt, Kochi-682017 Kerala Ph.- 0484-2337028, 2337038	All Examination Centres within Kochi, Trivandrum, Vatakara, Chennai, Madurai, Banglore, Bijapur, Panaji, Port Blair, Mumbai, Pune, Nagpur, Rajkot, Ahmedabad
5.	Dy. Registrar IGNOU Regional Evaluation Centre-Lucknow IInd Floor, 5 C / INS-1, Sector-5, Vrindavan Yojana , Telibagh, Lucknow –226029 Ph.- 0522-2442825	All Examination Centres within Lucknow, Varanasi, Aligarh, Dehradun, Noida, Karnal, Chandigarh, Khanna, Shimla, Jammu, Srinagar
6.	In-Charge IGNOU Regional Evaluation CentreShillong, IGNOU Regional Centre, NEHU Campus, Umshing, Mawkynroh, Shillong-793022 Meghalaya Ph.- 0364-2550130	All Examination Centres within Shillong, Guwahati, Jorhat, Itanagar, Imphal, Agartala, Gangtok, Kohima, Aizwal

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INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI-110068
APPLICATION FORM FOR OBTAINING PHOTOCOPY OF THE ANSWER SCRIPT

(Rules & regulations are mentioned on the reverse side of this form. Please go through them carefully before filling up the form).

Prescribed dates for submission of form:- 1st March to 15th April for June Term-end Exam.
1st September to 15th October for December Term-end Exam.

1. Name ....

2. Programme: [   ]   Enrolment No: [ ][ ][ ][ ][ ][ ][ ][ ][ ]

3. Address : ....

   ....

   ....Pin Code [ ][ ][ ][ ][ ][ ]

4. Detail of the course(s), for which photocopy of the answer script(s) is/are required:

   (a) Term-end examination: June/December....................

   (b) Exam Centre Code: [ ][ ][ ][ ][ ]

   (c) Exam Centre Address :   ....

   ....

   ....

   (d) Course(s)   ....

5. Fee details:-

    (The fee for this purpose is ₹ 100/- per course, which is to be paid through demand draft drawn in favour of IGNOU & payable at the City of Evaluation Centre).

    No. of Course(s) : .... X ₹ 100/-   Total Amount: ....

    Demand Draft No. :......................................   Date : ....

    Issuing Bank : ....

   6. Self attested photocopy of the Identity Card : Attached/Not attached issued by the University.

UNDERTAKING

I hereby undertake that the answer script(s), for which photocopy(ies), applied for, belongs to me. For this purpose, I am enclosing self attested photocopy of my Identity Card issued by the University. In case, my statement is found false, the University may take action against me as deemed fit.

Date : ....   Signature ....

Place : ....   Name : ....

1. The fee for photocopy of the answer script shall be ₹ 100/- (Rupees One Hundred Only) per course.

2. Application form without self attested photocopy of the Identity Card of the student will not be entertained.

3. Student's application form for photocopy (ies) of the answer script(s) shall reach the Concerned Authority (as mentioned below in the last para) alongwith the prescribed fee within 45 days from the date of declaration of result. The date of receipt of application for June term-end examination shall be by 15th October and for December term-end examination by 15th April or within 45 days from the date of declaration of result on the University's website, whichever your later.

4. The students, who find that any portion of the answer was not evaluated or any totaling error is noticed, may point out the same and submit their representation alongwith a copy of the answer script supplied to them within 15 days. No other query regarding evaluation of answer script shall be entertained.

5. The students, who intend to apply for photocopy(ies) of the answer script(s) may simultaneously apply for re-evaluation, if they so desire. The last date for submission of application for re-evaluation will not be extended to facilitate them to point out discrepancy in the evaluation.

6. The application form duly filled-in may be sent to the following address except CPE & DPE programmes:-

Sl.No.	Address of Evaluation Centre	Jurisdiction of Evaluation Centre
1.	Regional Director, IGNOU Regional Evaluation Centre, 3 rd Floor, Sanchi Complex, Shivaji Nagar, Bhopal-462016 Madhya Pradesh	All Examination Centres within Bhopal, Jabalpur, Raipur, Ranchi, Patna, Darbhanga, Bhagalpur, Jodhpur and Jaipur
2.	Regional Director , IGNOU Regional Evaluation Centre, C/1, Institutional Area, Bhubaneswar-751013 Odisha	All Examination Centres within Bhubaneswar, Koraput, Kolkata, Deoghar, Siliguri, Raghunathganj, Vishkhapatnam, Vijayawada, Hyderabad
3.	Dy. Registrar IGNOU Regional Evaluation Centre-Delhi Block-5, IGNOU, Maidan Garhi, New Delhi-110068 Ph.- 011-29533565, 011-29571501	All Examination Centres within Delhi-1, Delhi-2, Delhi-3, All Schools and Divisions, Centres, Units & Institutes at Headquarters, International Division and answer scripts received from other Evaluation Centres/sources, if any.
4.	Deputy Registrar, IGNOU Regional Evaluation Centre, IGNOU Complex, Kaloor PO Ernakulam Distt, Kochi-682017 Kerala Ph.- 0484-2337028, 2337038	All Examination Centres within Kochi, Trivandrum, Vatakara, Chennai, Madurai, Banglore, Bijapur, Panaji, Port Blair, Mumbai, Pune, Nagpur, Rajkot, Ahmedabad
5.	Dy. Registrar IGNOU Regional Evaluation Centre-Lucknow IInd Floor, 5 C / INS-1, Sector-5, Vrindavan Yojana , Telibagh, Lucknow –226029 Ph.- 0522-2442825	All Examination Centres within Lucknow, Varanasi, Aligarh, Dehradun, Noida, Karnal, Chandigarh, Khanna, Shimla, Jammu, Srinagar
6.	In-Charge IGNOU Regional Evaluation CentreShillong, IGNOU Regional Centre, NEHU Campus, Umshing, Mawkynroh, Shillong-793022 Meghalaya Ph.- 0364-2550130	All Examination Centres within Shillong, Guwahati, Jorhat, Itanagar, Imphal, Agartala, Gangtok, Kohima, Aizwal

7. For the photocopy(ies) of the answer script(s) of CPE & DPE programmes, the application form may be sent to the Regional Centre concerned.

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI-110068

Form No.10

APPLICATION FORM FOR ISSUE OF OFFICIAL TRANSCRIPT

1. Name : ....

2. Programme : [   ] Enrolment No. : [   ]

3. Address : ....
    ....
    ....…………… Pin [   ]

4. Contact No: (Mobile No.)………………….Landline No:…………………………..

5. Purpose for which, transcript is required ....

6. **Fee for the official transcript:- (Please note: Per transcript means one photocopy of one certificate, hence, each photocopy, which is required to be attested by the University will be charged on the following prescribed rates):**

(i) - ₹ 300/- per transcript for Indian Students, if transcript is required to be sent to the Student/Institute within India.

(ii) - ₹ 500/- per transcript for Indian Students, if transcript is required to be sent to the Student/Institute outside India.

(iii)- ₹ 600/- per transcript for SAARC Countries Students, if transcript is required to be sent to the Student/Institute within India and ₹ 1200/- per transcript for the same students, if transcripts is required to be sent to the outside India.

(iv) - $60 per transcript for Non-SAARC Countries Students, if transcript is required to be sent to the Student/Institute within India and $120 per transcript for the same students, if transcript is required to be sent to the outside India.

(The requisite fee is required to be paid through demand draft drawn in favour of 'IGNOU' & payable at 'New Delhi')

7. No. of transcript(s) required: .... X ₹ 300/- ₹ 500/-or …………………. = total Amount : ₹ .... Demand Draft No. : ………................... Date : .... Issuing Bank : ....

8. Mention the Name of Student/Programme & Enrolment No. at back side of above demand draft.

9. Name & Address of the University/Institute/Employer (In capital letters) to whom transcript is required to be sent (attached a separate list, if required)
    ....
    ....

10. **If, the Transcript is required to collect Personally : Name………………………………… Mobile No……………………(Please see Instructions in back-side at Point-C)**

Date :......................   (Signature of the student)

INSTRUCTIONS FOR "OFFICIAL TRANSCRIPT"

(A)- The filled in form duly signed by the student with the requisite fee & documents may be sent to:-

The Registrar,
Student Evaluation Division, Indira Gandhi National Open University,
Block-12, Maidan Garhi, New Delhi-110068 (INDIA)

(B)- The students are required to enclose same number of legible photocopies of both sides of the statement of Marks-sheet/Grade Card/Provisional Certificate and Degree Certificate etc. issued to them, as the number of transcripts are required. Each photocopy of the certificate is chargeable as mentioned at prescribed format under Point No.-6. Incomplete application will be entertained.

(C)- If the Student/Applicant has applied for Official Transcript and wants to collect the same Personally or ByHand himself/herself from the Section Officer, Exam.-III Section of SED, Block-12, Room No.-10, IGNOU, Maidan Garhi, New Delhi-110068 (India) then He/She is required to mention such information & Mobile No. under Point No.-10 in prescribed format for calling them provided that He/She has to produce the valid Original Identity Card/Votter Card/Aadhar Card/PAN Card/Driving License or Passport etc. for signature/photograph/residential Id. Proof. at the time of collecting their Transcripts.

Note:- If the student want to collect his/her transcript by-hand through any other person from the above Section then the receiver has to produce all above documents of the student alongwith "AuthorizationLetter" of the concerned student. The person who want to receive the Transcript(s) on behalf of the student, has to produce his/her valid Original Identity Proof for signature/ photograph/residence etc. like Identity Card/Votter Card/Aadhar Card/PAN Card/Driving License etc.and he is also required to submit the copies of the same to this Section at the time of collecting the Transcript.

(D)– The University has been sending/dispatching the "Official-Transcripts" under sealed envelope(s) through Indian Speed Post Services and the normally, the Exam-III Section of SED takes minimum 15 days for the issuance/dispatching the "Official Transcript(s)" after receiving the Application-Form of the student at this Section but "Dispatching/Issuance time depends on furnishing the Verification Report by another Sections and circumstances surrounding the case.

(E)- As per the requirement, the demand draft of requisite fees should be reached to this Division prior to 60 days or earlier from the expiry of the same demand draft for smooth transaction with the bank.

(F)– Under the existing procedure, the University issues the "Official Transcripts" on "University Letter-Head" duly signed & verified on current status of each copy of Mark-sheet/Grade-card/PC/ Degree Certificate etc. by the authorized Officer on behalf of the Registrar (SED) or Controller of the Examinations, containing the following information therein:-

i) Attested copies of Mark-sheet/Grade-card/PC/ Degree Certificate etc. including detailed information about the   "Programme" completed by the Student / Details of the Courses/ Scheme of Assessment of Student's Performance / Minimum Standard for Completion of the Courses and Programme / Scheme of Study / Duration of Programme / Year of Admission & Completion of Programme / Mode of study / Medium of study etc. This information is based on the current status of the Mark-sheet/Grade card.

ii) Recognition of the University and authenticity of its Degrees/Diploma etc. It is also clarified in the "Official Transcript" that the University does not issue Year-wise/Semester-wise Mark-sheet/Gradecard but issue a comprehensive Mark-sheet/Grade-card after successful completion of the programme to the students.

(G)- The inquiry about status of the "Official Transcript" submitted by the student/applicant can be obtained from "Official Transcript Counter" Exam.-III Section of SED (Block-12, Room No.-10), IGNOU, Maidan Garhi, New Delhi-110068 personally or on Telephone No. 011-29572210 between Monday to Friday during Office hours after 15 to 25 days of receiving the Application-Form at this Section.

(For Change of Address, send it duly filled-in to the concerned Regional Director, who will forward it to the Registrar (SRD), Maidan Garhi, New Delhi after verification)

Application for Change of Address

Date: _____

To

The Registrar, SRD
IGNOU
Maidan Garhi
New Delhi-110 068.

THROUGH THE REGIONAL DIRECTOR CONCERNED

Enrolment No._____

Programme_____

Name (in caps)_____

1. DETAILS FOR CHANGE/CORRECTION OF MAILING ADDRESS

New Address   **Old Address**

_____   _____

_____   _____

_____   _____

_____   _____

City_____Pin_____   City_____Pin_____

State_____   State_____

_____
Signature of the Student

ignou
THE PEOPLE'S
UNIVERSITY

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
STUDENT EVALUATION DIVISION
MAIDAN GARHI, NEW DELHI-110 068
TERM-END EXAM – JUNE / DECEMBER, 201___

EXAM FORM

Serial No.

Control No.

INSTRUCTIONS
1. Please submit your exam form at the concerned Regional Centre under which your examination centre falls.
2. Write in CAPITAL LETTERS only within the box without touching the lines as shown in the sample below.

`0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z`

Programme Code | **Regional Centre Code** | **Study Centre Code**

Enrolment No. | **Exam Centre Code** (Where you wish to appear in Exam)

Name of the Candidate: (Leave one box empty between First Name, Middle Name and Surname)

Address for Correspondence (Do not give Post Box No. Address. Leave a blank box between each unit of address like House No., Street Name, PO, etc.)

City | District

State | Pin Code

MOBILE NO. | E-MAIL

Physical handicapped (Please tick the relevant box) | YES | NO | Scribe/Amanuensis required by the student (Please tick the relevant box) | YES | NO

FOR SCRIBE/AMANUENSIS, THE STUDENT MAY APPROACH THE CONCERNED REGIONAL CENTRE (UNDER WHOM THE EXAMINATION CENTRE FALLS) ALONG WITH DISABILITY CERTIFICATE

COURSE OPTION:

Course codes for which appearing for the first time OR failed in the earlier TEEs including Practical Courses for BCA, MCA/ PGDLAN / BLIS Programmes.
FEE ₹60/- PER COURSE (Demand draft in favour of IGNOU and payable at City of Regional Centre under which your exam centre falls.

S.No.	Course Code	S.No.	Course Code
1.		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

FEE DETAILS (Please write your Name & Enrolment No. at the back of the Draft)

Total No. of Course		Total Amount	1. Draft No.	
Theory Courses	₹ × 60		Amount	
Practical Courses	₹ × 60		2. Draft No.	
Late Fee			Amount	
TOTAL			Date	/ /

SIGNATURE OF THE STUDENT (within the Box only) ☞

Issuing Branch _____
Payable at (Regional Centre under which your exam centre falls)

ISSUING BANK

Dates for Submission of Exam Forms

FOR JUNE TEE	LATE FEE	FOR DECEMBER TEE	LATE FEE	SUBMISSION OF EXAM FORM
1 March to 31 March	NIL	1 Sept. to 30 Sept.	NIL	ONLY AT THE CONCERNED REGIONAL CENTRE UNDER WHICH YOUR EXAMINATION CENTRE FALLS
1 April to 20 April	₹ 300/-	1 Oct. to 20 Oct.	₹ 300/-	
21 April to 30 April	₹ 500/-	21 Oct. to 31 Oct.	₹ 500/-	
1 May to 15 May	₹ 1000/-*	1 Nov. to 15 Nov.	₹ 1000/-*	

*Exam for these students will be conducted at Regional Centre city only.

Before submitting the examination form please ensure that:
- The required number of assignments as applicable for the course(s) filled in the examination form have been submitted.
- The authentication certificate is duly signed by the Coordinator/Incharge of your Study Centre/PSC/PI...etc.
- Registration for the course(s) is valid and not time-barred.
- **Examination fee ₹ 60/- per course has been remitted and the relevant proof enclosed.**
- In case examination fee is submitted through demand draft please ensure that the **demand draft is made in favour of IGNOU and payable at the city of the Regional Centre where you are submitting your examination form.**
- The enrolment number, programme code, course code are correctly filled in the examination form.

In case of non-compliance of any of the above conditions candidature for appearing in the Term-end Examination will not be considered and no Hall Ticket will be issued.

PLEASE NOTE :
Examination fee per course is - **₹60/- (Examination fee once paid will not be refunded/adjusted in any case)**
Examination form to be submitted at - **Regional Centre under which your examination centre falls**
Demand draft to be made in favour of - **IGNOU and payable at the city where submitting the exam form**

INSTRUCTIONS FOR FILLING UP THE EXAMINATION FORM
1. Please fill in the course(s) only for which the assignments have been submitted by you within the scheduled time. No Hall Ticket will be issued in case the assignments for the course(s) have not been submitted.
2. Please write correct course code(s) as indicated in your Programme Guide, failing which the course(s) will not be included in Hall Ticket for taking examination (For example ECO-01/MS-02).
3. In case wrong/invalid course code is mentioned in examination form, the course will not be included in the Hall Ticket and the examination fee paid will not be refunded.
4. Examination form should be submitted only once for each Term-end Examination. In case two exam forms are submitted the condidature will be cancelled.
5. Please send the examination form by Registered/Speed Post and retain the proof of its mailing till you receive the Hall Ticket.
6. Term-end Examination result is also available on the University website (www.ignou.ac.in). Please see the result status before filling examination form.
7. It is advised to enclose/forward only the Examination Fee along with this form. Any other fee (registration/re-registration) forwarded with this form will result in rejection of the examination form.
8. Examination form received without examination fee or late fee (if applicable) will similarly be rejected.
9. Students of BA/B.Com./BCA/BTS Programme can take examination for courses up to 48 credits and those of Management Programme can take examination for a maximum of 8 courses at a time.
10. Normally the Study Centre is the Examination Centre. In case you wish to take examination at a particular centre the code of your chosen centre be filled up as Examination Centre Code. However, if Examination Centre chosen by you is not activated you will be allotted another Examination Centre under the same Region.
11. **In case you fail to receive Examination Intimation Slip/Hall Ticket one week before the commencement of examination you may visit our website (www.ignou.ac.in) and download the Hall Ticket and report at the Examination Centre with your Identity Card.**
12. Change of Examination Centre, once allotted, is not permissible under any circumstances.
13. No student will be allowed two exam centres for a TEE.

DECLARATION
I hereby declare that I have read and understood the instructions given above. I also affirm that I have submitted all the required number of assignments as applicable for the course(s) filled in the examination form and my registration for the course(s) is valid and not time barred. If any of my statements is found to be untrue, I will have no claim for taking examination. I undertake that I shall abide by the rules and regulations of the University.

Date_____   (Signature of the student)

Phone No. (R)_____ Mobile No._____ Email Id_____
Phone No. (O) (with STD code) _____

AUTHENTICATION BY CO-ORDINATOR/INCHARGE OF STUDY CENTRE/PROGRAMME STUDY CENTRE/PARTNER INSTITUTION/ COMMUNITY COLLEGE

It is to certify that the student has submitted all the assignment(s) for the course(s) filled in the examination form.

Centre Code_____   (Signature & Stamp of Co-ordinator/Incharge)
Date _____   Study Centre/PSC/PI/Community College

ASSIGNMENTS REMITTANCE -CUM-ACKNOWLEDGEMENT CARD

Enrol. No._____
Programme Title: _____

Name : _____

Course Code: _____Medium: _____

S.No.	Assignment No.

For Office Use Only

S .No. _____

Date of Receipt: _____

Name of Evaluator: _

Signature of the Student
Date : _____

Date of despatch to
the Evaluator:
_____

Date of receipt from
the Evaluator:
_____

**INDIRA GANDHI NATIONAL OPEN UNIVERSITY
ASSIGNMENTS REMITTANCE -CUM-ACKNOWLEDGEMENT
CARD**

Enrol. No._____   Programme Title: _____

Name : _____   Medium : _____

Course Code: _____

S.No.	Assignment No.

For Office Use Only

S.No. _____

Signature of the recevier _____

Date : _____

Seal

Signature of the Student

Name : _____
Address of the Student : _____
Date : _____

(Please write your complete address and affix adequate postal stamp on reverse)

Affix
Stamp
Here

From:

    The Coordinator
    Study Centre concerned

To

    (ADDRESS OF THE STUDENT)
    ……………………………..
    ……………………………..
    ……………………………..

9.QR Code of Some of the Useful Web Links

eGyankosh
(for Online Course Materials)

Online Re-Registration Form

iGRAM
(IGNOU Grievance control Room)

To Watch Live Telecast/
To listen live Broadcast

Online Examination Guidelines and Form

Forms for Students

Note: The above QR Codes can be scanned and open through and QR Code Scanner Application/App.