Syllabus

Introduction to Python Programming language
Duration: 30 hours

Module I
Introduction to Python, Variables, keywords, Identifiers, Basic Operators; String and basic operation; Conditional Execution: If statements, Loops: For loop, while loop, break and Continue; Functions-Defining your own function, Parameters, Functional Documentation, Variable number of arguments, Map, filter and Lambda function, Dir function.

Module II
Containers: List and List Methods, Sets, Tuples , Dictionaries, Arrays.

Module III
Modules: Need of modules, creating modules Loading the modules; The Object-Oriented Approach: Classes, Methods, Inheritance Objects; Exception Handling-Error and handling errors, Raise, Assert.

Text Book:

1.   Introducing Python- Modern Computing in Simple Packages – Bill Lubanovic, O‚Reilly Publication
2.   Beginning Python: From Novice to Professional, Magnus Lie Hetland, Apress
3.   Practical Programming: An Introduction to Computer Science Using Python 3, Paul Gries, et al., Pragmatic Bookshelf, 2/E 2014

Reference Book:

1.   Introduction to Computer Science Using Python- Charles Dierbach, Wiley Publication

2.   Learning with Python ", Green Tea Press, 2002

Schedule of Section B

Duration: 30 hours			
Session	**Content**	**Time**	**Date**
1.	Introduction to Python	03:00-04:00	18-Aug-21
2.	Basics of Variables, keywords, Identifiers	03:00-04:00	20-Aug-21
3.	Basic Operators	03:00-04:00	25-Aug-21
4.	String and basic operation	03:00-04:00	27-Aug-21
5.	Conditional Execution: If statements	03:00-04:00	1-Sep-21
6.	Loops: For loop, while loop	03:00-04:00	3-Sep-21
7.	Conditional Statement: break and Continue	03:00-04:00	8-Sep-21
8.	Concepts of Functions-Defining your own function	03:00-04:00	10-Sep-21
9.	Parameters, Functional Documentation	03:00-04:00	15-Sep-21
10.	Variable number of arguments	03:00-04:00	17-Sep-21
11.	Map, filter and Lambda function	03:00-04:00	22-Sep-21
12.	Dir function	03:00-04:00	24-Sep-21
13.	Revision of Module 1	03:00-04:00	29-Sep-21
14.	Lab session	03:00-04:00	1-Oct-21
15.	Containers: List and List Methods	03:00-04:00	6-Oct-21
16.	Basics of Sets	03:00-04:00	8-Oct-21
17.	Introduction of Tuples	03:00-04:00	13-Oct-21
18.	Introduction to Dictionaries	03:00-04:00	20- Oct-21
19.	Arrays	03:00-04:00	22-Oct-21
20.	Revision of Module 2	03:00-04:00	27-Oct-21
21.	Lab session of Module 2	03:00-04:00	29-Oct-21
22.	Modules: Need of modules	03:00-04:00	3-Nov-21
23.	creating modules	03:00-04:00	10-Nov-21
24.	Loading the modules;	03:00-04:00	12-Nov-21
25.	The Object-Oriented Approach: Classes	03:00-04:00	17-Nov-21
26.	Methods, Objects	03:00-04:00	19-Nov-21
27.	Inheritance, Abstraction	03:00-04:00	24-Nov-21
28.	Exception Handling-Error and handling errors	03:00-04:00	26-Nov-21
29.	Basics of Raise, Assert.	03:00-04:00	1-Dec-21
30.	Lab session of Module 3	03:00-04:00	3-Dec-21

	Report
Name of Activity	Introduction to Python Programming language
Date	18th August 2021 to 3rd December 2021
Venue	BCA Classroom
Organized by	Computer Application Department
Name of Expert	Dr. Kanika ,Assistant Professor, MIMT
Participated by	BCA 3rd Semester Sec-B (42 Students)
Coordinator	Mr. Himanshu Rastogi, Assistant Professor, MIMT
Objective	• The course is designed to provide Basic knowledge of Python. • Python is a computer programming language Students often used to build websites and software, automate tasks, and conduct data analysis.
Content	With the initiative of IQAC, Mangalmay Institute of Management and Technology organized add on certification course on "Introduction to Python Programming language". The course enabled the students to defining basics of Python Programming, what it comprises and its importance in modern day organization. Day1: The session started with the discussion on introduction of python. Day 2: In this session, Students learnt how to declare the variables and what is keyword and identifiers in python. Day 3: In this interactive session, students knew about the basic operators in python. Day 4: The resource persons started the session with discussion on string keyword and its basic operations applied on strings. Day 5: In this session, learnt about conditional statements such as if, if-else, el-if. Day 6: The session was on looping statements.. Day 7: This session was focused on another condional statement that is break and continue. Day 8: In this session, the resource persons discussed about concepts of functions. Day 9: The resource persons discussed how to do parameters functions and functional documentation.

Day 10: This session starts with the variable number of arguments.

Day 11: This session discussed About the Map, filter and lambda functions.

Day 12: In this session, Dir functions were discussed.

Day 13: The resource persons discussed of the whole module 1 again.

Day 14: The resource person now comes to the lab session which required to do programming of python.

Day 15: In this session, resource person discussed the containers of python like List and List methods.

Day 16: Resource person discussed about the basics of sets.

Day 17: The Resource person discussed about the introduction of tuples.

Day 18: The session was about the dictionaries.

Day 19: In this session, Arrays were discussed.

Day 20: The module 2 revised by the resource person. So that students were clear their doubts.

Day 21: The resource person now comes to the lab session related to module 2's programs

Day 22: In module 3, Students learnt about the what is the need of modules in python.

Day 23: In this session Students learnt how to create the modules in python.

Day 24: Students learnt about the loading of modules in python.

Day 25: This session discussed about the object oriented approach that is classes.

Day 26: This session discussed about the methods and objects in python.

Day 27: Students learnt more oops features that is inheritance and abstractions.

	Day 28: The resource person discussed how to handle the exception and errors.
	Day 29: In this session, basics of Raise and Assert were discussed.
	Day 30: lab session was taken by the resource person.
Outcome of Activity	• Student will master the essential concepts of data types, tuples, lists, dictionaries, basic operators, and functions. • Students can finish their computer programming tasks more quickly and easily. They also can complete their programming tasks through open source code in the Python online communities.

List of Beneficiary

Section –B

Sr. No.	Roll No.	Student Name	Sr. No.	Roll No.	Student Name
1	R200992106007	AFNAN RASHID	22	R200992106075	RAVI RAJ
2	R200992106014	ANIKET SAHU	23	R200992106081	ROHIT SHRIVASHTAVA
3	R200992106015	ANISH RAJ	24	R200992106096	SAURAV SUMAN
4	R200992106016	ANKIT ANAND	25	R200992106097	SHAGUN KUMAR AMBASTA
5	R200992106018	ANKIT KUMAR	26	R200992106098	SHASHANK SINGH CHHONKAR
6	R200992106021	ANKUSH KUMAR	27	R200992106099	SHIVAM RAJ
7	R200992106025	AYUSHI RAJORIA	28	R200992106100	SHIVAM KUMAR
8	R200992106032	DEVENDRA KUMAR	29	R200992106102	SHIVAM KUMAR
9	R200992106033	DHIRENDRA KUMAR	30	R200992106103	SHUBHAM KUMAR
10	R200992106034	DIVYAM KANOJIA	31	R200992106104	SHWETANK KUMAR
11	R200992106043	HARSHITA JAYANT	32	R200992106106	SONI
12	R200992106045	JAY VATS	33	R200992106107	SPARSH VERMA
13	R200992106047	KUNAL KUMAR	34	R200992106108	SUFIYAN IQBAL
14	R200992106048	KUSHAL SHARMA	35	R200992106110	SUNIL KUMAR
15	R200992106062	MOHIT KUMAR	36	R200992106118	UMDESH SINGH
16	R200992106063	MOHIT SINGH	37	R200992106123	VINIT KUMAR
17	R200992106067	NITIN KUMAR	38	R200992106125	VISHAL KUMAR
18	R200992106070	PRANJAL KUMAR SINGH	39	R200992106128	VISHAL SHARMA
19	R200992106071	PRASHANT SINGH	40	R200992106130	VIVEK KUMAR
20	R200992106072	PRERNA VERMA	41	R200992106133	YUVRAJ
21	R200992106074	PUSHPENDRA SINGH PAL	42	R200992106134	YUVRAJ YADAV

Resource Person Profile

Name: Dr. Kanika, Assistant Professor

Org: MIMT, Greater Noida

Research Area : Big Data, Big Data security

Core Skills: C++, DBMS, Java,

Qualification: MCA, PhD

Experience: 4 years

Mangalmay Institute of Management Technology
Greater Noida (U.P.)

Certificate Template:

MANGALMAY
INSTITUTE OF MANAGEMENT & TECHNOLOGY

Certificate No. BCA/21-22/SP301/079

CERTIFICATE OF COURSE COMPLETION

This is to certify that

_____ Umdesh singh _____

Student of BCA, Batch (2020-23) has successfully completed 30 Hours

Specialization Course on __Python__

from __Aug 2021__ to __Dec 2021__ with Grade __B__

Course Coordinator   Head of the Department   Chairman

MANGALMAY
INSTITUTE OF MANAGEMENT & TECHNOLOGY

Certificate No. BCA/21-22/SP301/081

CERTIFICATE OF COURSE COMPLETION

This is to certify that

_____ Vivek kumar _____

Student of BCA, Batch (2020-23) has successfully completed 30 Hours

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