

S.NO	TITLE	Pg. NO
1.	contents	1-37
2.	OOPs Concept	39 - 51
3.	Modules	
4.	Exception Handling	
5.	NUMPY (Array)	52
6.	PANDAS Library	61
7.	How to solve difficult programmes	
8.	How to improve skills.	

Contents		Pg. No
1)	Introduction to Python	2
2)	Applications of Python	3
3)	IDEs (Integrated Development Environment)	3
4)	Introduction to Python Interpreter	3
5)	Indentation and comments	4
6)	Keywords	5
7)	Variables - Identifiers	5
8)	Keywords	
9)	Variables - Identifiers → Rules	
10)	Built-in types	6
11)	Assigning values to variables → # types	7
12)	Input and output statements	9
13)	Operators	11
14)	Control structures	13
15)	Math & Random Modules	17
16)	List	19
17)	Tuple	24
18)	Strings	25
19)	Set	27
20)	Dictionary	28
21)	Functions	30
22)	Files	
23)	Libraries in Python	

Q) How to solve Any difficult Programs?

To solve a Program we need to follow the steps

- 1) Don't get panic
- 2) Read the Problem Statement twice (or) thrice.
- 3) Analyse the & formulate solution

Take paper and write step by step solution not Algorithm

4) Identify

what is the inputs we need to give & what is the output we need to print.

5) Be strong with Programming syntax

6) Start the Program by using step by step alg

7) After spending so much time Don't GIVE UP

8) If required search solution in Internet

9) Understand every instruction of Program

10) Identify the constraints.

Ex: hacker rank, geeks for geeks, W3 schools

11) OPTIMAL SOLUTIONS

Python
Invented by Guido van Rossum dutch

1. Introduction to Python (1989)

- a) Why Python? *Python has largest community*
- b) Difference b/w C, Java & Python
- c) Features of Python
- d) History of Python

Why Python!

→ It has simple syntax

→ Length of code is very small, *because of high level data types*

→ Complex Problems can be solved very simple.

Features of Python

→ Simple to learn / write *compare to C, C++*

→ Open source *we can modified & distributed*

→ Portability *i.e. same code can be run on used on diff. machines.*

→ High level interpreter *- memory management itself*

→ Object oriented & Procedure oriented. *source code executed line by line and not all at once.*

→ Standard libraries (800+) *↳ diff. functions*

we can run Python on any platform if it focus more on objects rather than functions and logic called object-oriented vice versa.

→ Platform independent

→ No type declarations *in C for a=5*

→ No compilation & linking *in C for a=5*

→ Fewer lines compared to C