1) Introduction:-

Python course:- a) Tools you Need

The Tools that you need for the python course is: that
* The first thing you need is python tool is installed.
* second you need an IDE. (Integrated Development Environment).
* IDE is Basically a Text Editor but with some functionalities Designed for Programming
* We are going to use python 3.
* Python is a cross platform. It will be worked in Any platform such as Windows, linux, or Mac.

b) Installation of python 3 and IDE:-

i) On Windows:- First go to python.org (the official Web page of Python) and then go to downloads and there you find a file of python. so Just Run, that will Download the file in your PC and Next Run it. Make sure that you python 3.7 and then go for Install now & Just wait for the Installation process. Next go to command prompt & type python. If the python is not working, type py-3 and check. Next step is to Install visual studio code IDE, first go to the Website (https://code.visualstudio.com)/ and press that "Download for windows" button, Run, Next. go to the "I accept the agreement", Next to click all these options and go Next, & Install, After Installation, click on finish.

2) The Basics :- small program

First python code:- import datetime
print(datetime.datetime.now())

and save the code. For Executing the code, Type "python 3 basics.py", and the code is executed in the Terminal Window.

* Import datetime
* print("the data & time is")
* print(datetime.datetime.now())

Output :- 2019-03-31 18:55:12.399607.

3) Basic data types :-

* Variables : are Names that you can create in python to store values. We cant use Numbers (or) Any symbols as variables. It leads to an error. We can store Numbers, Text etc :-

Ex :- x = 20
y = "50"

sub1 = x - x
sum1 = y + y
Print (sub1, sum2)
O/p : 0 5050

* We can create a list of Numbers using 'range'
Ex :- List {range (1, 10)}
O/p :- {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
"hello". upper → "HELLO"
"hello". title → "Hello"

* Tuples :- by using a Tuple We can add the value to the Variable.

Ex :- x = {1, 2, 3}
x . append (5)
O/p :- {1, 2, 3}

* Lists :- Members = {"mary", "Joseph", "kasthik"}
numbers = {1, 3, 4, 8}

* Dictionaries :-
phone_numbers = {"mary" : 87648, "kasthik" : 9035}
key : phone_numbers . key()
O/p : Monday_temp = []

Section 4:- Operation With Data types

```
Monday_temp = {19.0, 16.8, 8.6}
Monday_temp.clear()
```

O/p: Monday_temp = []

Indexing & slicing

```
days = {'mon', 'tue', 'wed', 'thu', 'fri', 'sat', 'sun'}
day[2:4]
```

O/p: ['Wed, thur'].

Section 5:- functions & conditionals:-

```
def mean(mylist):
    the_mean = sum(mylist)/len(Mylist)
    return the_mean
print(mean([1,4,6]))
```

O/p: 3.666

```
def cube.volume(a)
    return a*a*a.
```

Section 6:- Processing users input

```
message = "hello %s" % user_input
```

Or message = {"hello {user_input}"}

Print message

O/p:- enter your name: Ravitoja

hello Ravitoja.

Section 7:- Loops

```
Monday_temp = [16.4, 5.9, 45.5]
for temperature in monday_temp:
    print(round(temp)).
```

Section 8:-

```
Def sentence_maker(phrase):
    interrogatives = ("how", "what", "Why")
    capitalize = phrase.capitalize()
    if phrase.starts with(interogatives):
        Return "{}." format(capitalize)
    else
        Retun "{}." . format(capitalize)
    Result = []
    While true:
        user_input = input: ("say_something")
        if user_input == "/end":
        break
    else:
    results.append(sentence_maker(user_input))
    print().
```