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VIMAL JYOTHI ENGINEERING COLLEGE

&

DEPARTEMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Report on value added course

"Fundamentals of Python"

for

S4 EEE (2021-25 BATCH)

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EVENT PROPOSAL FORM

1	**Event type and Name**	Value added program on" Fundamentals of Python"
2	**Date and time**	14th to 18th March 20213 , 9:30 am-4:00 pm
3	**Participants/audience**	S4 EEE students
4	**Venue**	Offline mode ,Software Lab
5	**Objectives**	1. To understand the students how to build algorithm for solving different problems. 2. To understand the students how to rectify errors in python programming.
6	**Expected outcomes**	1. 1. Students able to understand the basic concepts and iterating operations about PYTHON 2. Students able to understand and analyze the arithmetic and logic programming operations about the PYTHON. 3. Understanding the Data Types and language fundamentals of PYTHON 4. Students able to analyze the functions and file actions in PYTHON 5. Understanding the error corrections and advanced operations in Python with a socially relevant projects.
7	**Connected POs/PSOs**	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO11, PO12, CO1, CO2, CO3, CO4, CO5
8	**Resource requirements**	Software Lab
9	**Any other Relevant Information**	Resource Person: Mr. Muhammed Suhail, Robotics Enginer, Deepflow .Technologies Pvt LTD
10	**Responsible Person**	Proposal Prepared by, Ms. Tintu George T, Associate Professor , EEE, VJEC Mr Prabin James , Assistant Professor , EEE, VJEC 13/03/2023 Recommended by, Ms. Laly James, HOD EEE 13/03/23

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VIMAL JYOTHI INSTITUTIONS

VALUE ADDED COURSE ON "FUNDAMENTALS OF PYTHON"

COURSE CODE : ADEE401

COURSE DURATION : 5 DAYS (30 hrs)

IN ASSOCIATION WITH

DeepFlow TECHNOLOGIES

for S4 EEE

Venue : EEE Software Lab I On 14.03.2023 - 18.03.223

Convener
Prof. Laly James
(Associate Professor,HOD, EEE)

Staff Co-ordinators
Ms. Tintu George,Assoc.P. EEE
Mr Prabin James,AP EEE

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1. Introduction

This was a five day workshop on python programming organized by the Electrical & Electronics Department of Vimal Jyothi Engineering college from 14th to 18th March 2023 for all second year Electrical & Electronics students. To explore the power and simplicity of python, this workshop was very encouraging by covering all the python basics.The trainer Mr.Muhammad Suhail in his simple words gave us the mix of theory and practical knowledge of python programming

The session was inaugurated by Ms.Laly James, Head of The Department of Electrical and Electronics department ,also motivated the students with her speech and explained that these kinds of workshops are beneficial for the upcoming placements and technical knowledge.

Day 1 : 14th March

Introduction to programming and python and the students were taught that python is a simple programming language compared to other programming languages.After that familiared with 'Scratch',the world's largest coding community and a coding language with a simple visual interfacethat allows young people to create digital stories,games,and animation with some practical experience.

Day 2 : 15th March

On this day familiared with Visual Studio Code,a source-code editor made by Microsoft and learned the basics of coding. Python Workshop

Day 3 : 16th March

Earned certificates of kaggle and a coding certificate. This day was quite interesting for completing the given task.

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Day 4 : 17th March

Learned to prepare a notebook on google colab and prepared a python notebook by adding all the basic information about python that we have learned.So got a detailed idea about areacovered and the notebook will be helpful for the future references also.

Day 5 : 18th March

Introduced with HackerRank, a website which will be helpful for preparing technical interviews. After that , learned some basics of machine learning. The five days of workshopgot an end with the conclusion speech of Ms. Tintu George, Tutor ,2021-25 EEE batch and Mr. Jithin Nair and Mr. Ashwanth Shaji shared their experience on those five days. At the end of workshop students were happy knowing that they were now able to program Python.

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2. Curriculum and lesson Plan

MODULE 1 **Day 1**	**Environment Setup** • Python Installation • Execution Types • What is an interpreter? • Interpreters vs Compilers • Using the Python Interpreter • Interactive Mode • Running python files • Working with Python shell • Integrated Development Environments (IDEs) • Interactive Mode Programming • Script Mode Programming
MODULE 2 **Day 2**	**Basic Operators in Python** • Types of Operators • Python Arithmetic Operators • Python Comparison Operators • Python Assignment Operators • Python Bitwise Operators • Python Logical Operators • Python Membership Operators (in, not in) • Python Identity Operators (is, is not) • Python Operators Precedence
MODULE 3 **Day 3**	**Basic Concepts** **Data Types** • Variables • Assigning Values to Variables • Multiple Assignment • Python Numbers • Python Strings • Accessing Values in Strings • String Special Operators • String Formatting Operator • Triple Quotes • Built-in String Operations **Python Lists** • Accessing Values in Lists • Updating Lists

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	• Delete List Elements • Basic List Operations • Indexing, Slicing, and Matrixes • Built-in List Functions & Methods **Python Tuples** • Accessing Values in Tuples • Updating Tuples • Delete Tuple Elements • Basic Tuples Operations • Indexing, Slicing, and Matrixes • No Enclosing Delimiters • Built-in Tuple Functions **Python Dictionary** • Accessing Values in Dictionary • Updating Dictionary • Delete Dictionary Elements • Properties of Dictionary Keys • Built-in Dictionary Functions & Methods

MODULE 4
Day 4
	Loops and Decision Making
	• if statements
	• ..else statements
	• nested if statements
	• while loop
	• for loop
	• nested loops
	• Loop Control Statements
	  ○ break statement
	  ○ continue statement
	  ○ pass statement
	
	Functions
	• Defining a Function
	• Syntax
	• Calling a Function
	• Pass by reference vs value
	• Function Arguments
	• Required arguments
	• Keyword arguments
	• Default arguments
	• Variable-length arguments
	• The return Statement
	• Scope of Variables

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MODULE 5 Day 4	

Python Modules and Packages

- Framework vs Packages
- Folium Introduction
- Why are modules used?
- Creating modules
- The import Statement
- The from...import Statement
- The from...import * Statement
- Locating Modules
- The PYTHONPATH Variable
- Namespaces and Scoping
- The dir( ) Function
- The globals() and locals() Functions
- The reload() Function
- Packages in Python
- Constructing user defined packages
- Importing user defined packages

Basic OOPs Concept

Creating class in Python
Private Identifier
Constructor
Inheritance
Polymorphism

Decorator, Iterator and Generator

Anonymous Function

- Lambda
- Map
- Filter
- Reduce

File Manipulation

- Opening Text File
- Working with a File on Python
- The open function
- File modes
- The file object attributes
- close() method
- write() method
- read() method
- Files: Input
- Files: Output
- Reading files
- Renaming & deleting files
- Writing into a file

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	• remove() method
MODULE 6 **Day 5**	**Errors and Exception Handling** • Standard exceptions • Assertions in Python • The assert Statement • What is Exception? • Handling an exception • Syntax • The except Clause with No Exceptions • The except Clause with Multiple Exceptions • The try-finally Clause • Argument of an Exception • Regular Expression **Advanced Concept – Overviews** • Basics of Pandas and Numpy • How to use Anaconda • Overview of Machine Learning • Overview of Django

COURSE OUTCOMES

1. Students able to understand the basic concepts and iterating operations about PYTHON
2. Students able to understand and analyze the arithmetic and logic programming operations about the PYTHON.
3. Understanding the Data Types and language fundamentals of PYTHON
4. Students able to analyze the functions and file actions in PYTHON
5. Understanding the error corrections and advanced operations in Python with a socially relevant projects.

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CO PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2				3				3	2		3
CO2	3	3	2	2	3				3	2		3
CO3	3	2			3				3	2		3
CO4	3	3	3	3	3				3	2	3	3
CO5					3	3		3	3	2		3

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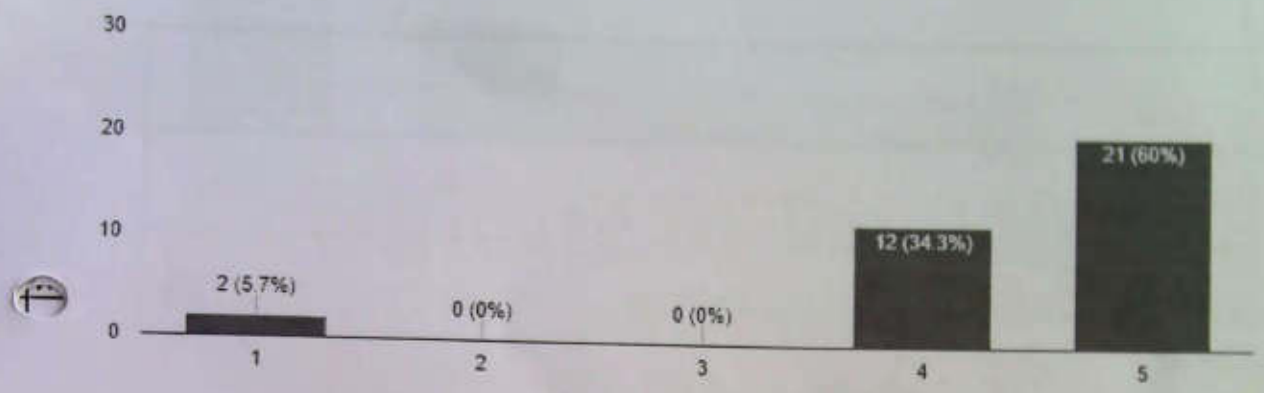
3. Feedback from students

Able to understand the basic concepts and iterating operations about PYTHON

Copy

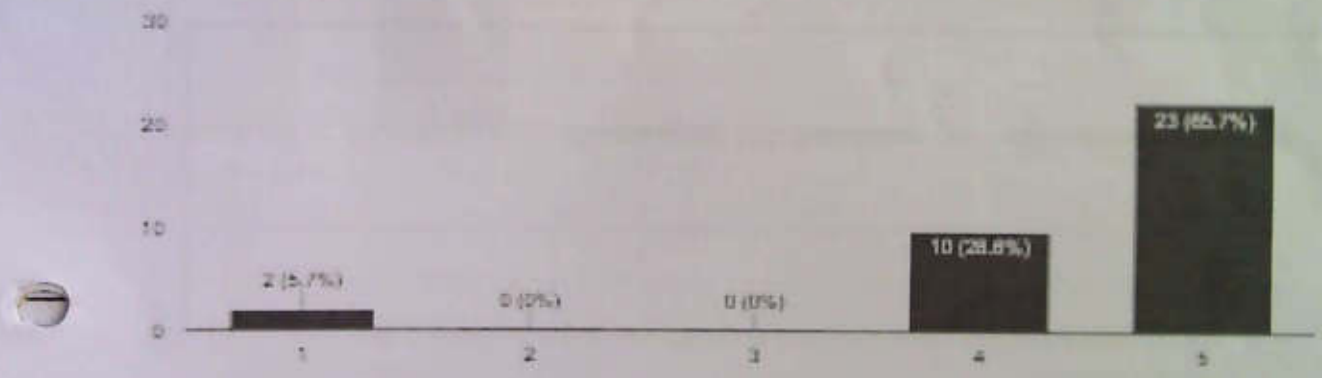
35 responses



Able to understand and analyze the arithmetic and logic programming operations about the PYTHON.

Copy

25 responses



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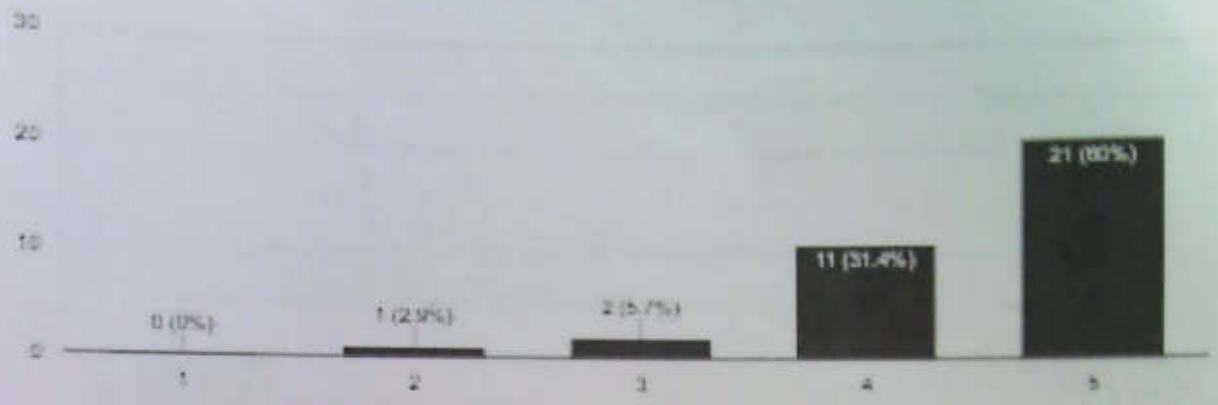
Able to understand the Data Types and language fundamentals of PYTHON

Copy

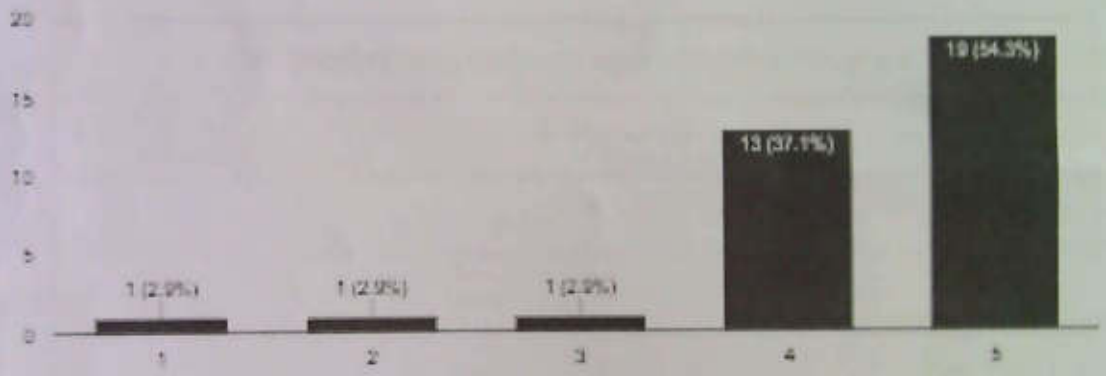
35 responses



Able to analyze the functions and file actions in PYTHON

Copy

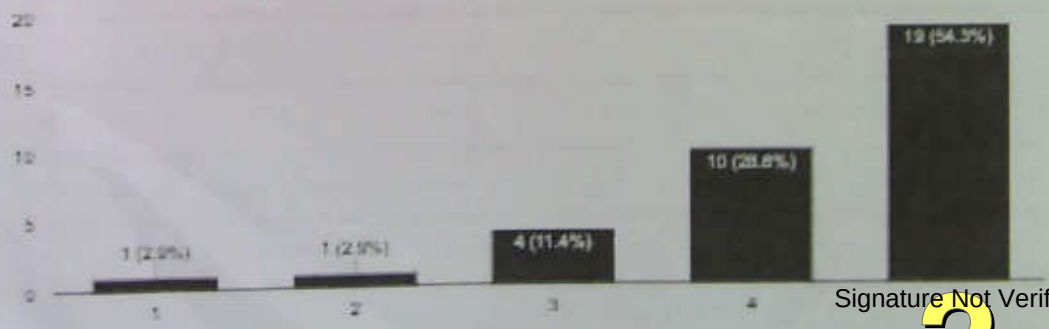
35 responses



Able to understand error corrections and advanced operations in Python with socially relevant projects.

Copy

35 responses



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4. Sample Certificate

IEEE
Advancing Technology for Humanity

VIMAL JYOTHI ENGINEERING COLLEGE

VALUE ADDED COURSE ON

"FUNDAMENTALS OF PYTHON "

Certificate of Participation

THIS IS TO CERTIFY THAT

Mr.Jithin Nair

HAS PARTICIPATED IVALUE ADDEED COURSE PROGRAMME ON "FUNDAMENTALS IN PYTHON PROGRAMMING " ORGANISED BY THE DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING, VIMAL JYOTHI ENGINEERING COLLEGE IN ASSOCIATION WITH IEEE AND DEEP-FLOW TECHNOLOGIES FROM 14th March 2023 TO 18th March 2023

Convener
Prof. Laly James
H.O.D, EEE

Mohammed Suhail

Robotic Engineer
Mr. Muhammed Suhail
Deep Flow Technologies

Principal
Dr. Benny Joseph

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5. Photo Gallery

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"Fundamentals of Python" Value added Course-Attendance

SL NO	REG NO	NAME OF THE STUDENT	3/14/2023		3/15/2023		3/16/2023		3/17/2023		3/18/2023	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	VML21EE001	Abhijith Rajeevan										
2	VML21EE002	Abhinav Pv										
3	VML21EE003	Abhinav S										
4	VML21EE004	Abhiraj V										
5	VML21EE005	Abhishek Vk										
6	VML21EE006	Abin C S										
7	VML21EE007	Amegh K										
8	VML21EE008	Arjun.v										
9	VML21EE009	Ashish Arun										
10	VML21EE010	Ashuthosh.t										
11	VML21EE011	Ashwanth Shaji										
12	VML21EE012	Aswanth K M									nb	
13	VML21EE013	Jithin Nair M										
14	VML21EE014	Nandana V P									nb	nb
15	VML21EE015	Nazal Najeeb Kt									nb	nb
16	VML21EE016	Niranjan Deb Prasad										
17	VML21EE017	Aswanth Mohan										
18	VML21EE018	Partheev Krishnan										
19	VML21EE019	Pranav K C										
20	VML21EE021	Razi Ilyas M K										
21	VML21EE022	Sarang M									nb	nb
22	VML21EE024	Shanat K S										
23	VML21EE025	Sharon Manas V V									nb	nb
24	VML21EE026	Sherlin M.b										
25	VML21EE027	Sijo Bijoy										
26	VML21EE028	Theertha H										
27	VML21EE029	Vinay K K										
28	VML21EE030	Vineeth Binoy										
29	VML21EE031	Vyshnavi P										
30	VML21EE032	Yadunand Sajith										

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Add-on Course on Python: Examination

Department of Electrical Engineering
Vimal Jyothi Engineering College, Chemperi

Mohammed Suhail
suhail@deepflow.in

1. Which of the following is a valid Python expression to create an empty list?

   (a) [ ]
   (b) { }
   (c) ( )
   (d) < >

2. What will be the output of the following code?

```
tuple1 = (1, 2, 3)
tuple2 = (4, 5, 6)
result = tuple1 + tuple2
print(len(result))
```

   (a) 3
   (b) 6
   (c) 9
   (d) error

3. Which of the following statements about dictionaries in Python is correct?

   (a) Dictionaries are ordered collections of elements.
   (b) Dictionary elements are accessed using numerical indices.
   (c) Dictionary elements are stored in a specific sequence.
   (d) Dictionaries store key-value pairs.

4. What is the purpose of the `'in'` keyword in Python?

   (a) It is used to define a loop.
   (b) It is used to check if a variable is defined.
   (c) It is used to iterate over elements in a sequence.
   (d) It is used to check if a value is present in a sequence.

LALY JAMES
HOD EEE, VJEC

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5. Which of the following statements about tuples in Python is true?

   (a) Tuples are mutable.
   (b) Tuples can store elements of different data types.
   (c) Tuples are enclosed in square brackets.
   (d) Tuples preserve the order of elements.

6. What will be the output of the following code?

```
my_tuple = ("apple", "banana", "cherry")
print(my_tuple[1])
```

   (a) "apple"
   (b) "banana"
   (c) "cherry"
   (d) Error

7. Which of the following is a valid way to remove an element from a list in Python?

   (a) list.remove(element)
   (b) list.pop(element)
   (c) list.delete(element)
   (d) list.clear(element)

8. In Python, what is the purpose of the `split()` method for strings?

   (a) It splits a string into a list of substrings.
   (b) It removes all spaces from a string.
   (c) It converts a string to uppercase.
   (d) It checks if a string contains a substring.

9. What will be the value of y after executing the following code?

```
x = (1, 2, 3)
y = x.append(4)
```

   (a) (1, 2, 3)
   (b) (1, 2, 3, 4)

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(c) 4

(d) Error

10. Which of the following is the correct way to open a file named `"data.txt"` in Python for reading?

(a) `file = open("data.txt", "r")`

(b) `file = open("data.txt", "w")`

(c) `file = open("data.txt", "a")`

(d) `file = open("data.txt", "x")`

11. Which of the following data types is mutable in Python?

(a) Tuple

(b) String

(c) Integer

(d) List

12. Medium: What is the output of the following code?

```
my_list = [1, 2, 3, 4, 5]
print(my_list[-3:])
```

a) [3, 4, 5]

b) [2, 3, 4]

c) [1, 2, 3]

d) [4, 5]

13. Medium: What does the `sort()` method do for a list in Python?

(a) Reverses the order of elements in the list.

(b) Sorts the list in descending order.

(c) Sorts the list in ascending order.

(d) Removes duplicates from the list.

14. Medium: What will be the output of the following code?

```
my_dict = {"apple": 1, "banana": 2, "cherry": 3}
print(len(my_dict))
```

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a) 0
b) 1
c) 2
d) 3

15. Hard: What is the purpose of the `lambda` keyword in Python?
    (a) To define a variable with a constant value.
    (b) To declare a function with a single expression.
    (c) To create an anonymous function.
    (d) To import external modules.

16. Hard: What will be the output of the following code?

```
my_string = "Hello, world!"
print(my_string[::-1])
```

    a) "!dlrow ,olleH"
    b) "Hello, world!"
    c) "dlrow ,olleH!"
    d) "world! ,Hello"

17. Easy: Which of the following is a correct way to check if a key exists in a dictionary?
    (a) `key in dictionary`
    (b) `key.exists(dictionary)`
    (c) `dictionary[key]`
    (d) `key.contains(dictionary)`

18. Medium: What is the difference between a set and a list in Python?
    (a) Sets preserve the order of elements, while lists do not.
    (b) Sets allow duplicate elements, while lists do not.
    (c) Lists are mutable, while sets are immutable.
    (d) Sets are enclosed in square brackets, while lists are enclosed in curly braces.

19. Medium: What does the `strip()` method do for strings in Python?
    (a) Removes all whitespace characters from both ends of the string.
    (b) Replaces specific characters in the string with a given substring.
    (c) Splits the string into a list of substrings.

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(d) Returns the length of the string.

20. Easy: Which of the following is the correct way to comment a single line in Python?

(a) `# This is a comment`

(b) `/* This is a comment */`

(c) `<!-- This is a comment -->`

(d) `// This is a comment`

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RAZI ILYAS M.K
VML21EE021
S4- EEE . Roll No: 21

Add-on Course on Python: Examination

Department of Electrical Engineering
Vimal Jyothi Engineering College, Chemperi

Mohammed Suhail
suhail@deepflow.in

16/20

1. Which of the following is a valid Python expression to create an empty list? 1

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2. What will be the output of the following code? 1

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3. Which of the following statements about dictionaries in Python is correct? 1

   (a) Dictionaries are ordered collections of elements.
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5. Which of the following statements about tuples in Python is true?

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```
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c) 2
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ABHINAV S
S4, EEE
VML21EE003

Add-on Course on Python: Examination

Department of Electrical Engineering
Vimal Jyothi Engineering College, Chemperi

Mohammed Suhail
suhail@deepflow.in

14/20

1. Which of the following is a valid Python expression to create an empty list?

   (a) []
   (b) { }
   (c) ( )
   (d) < >

2. What will be the output of the following code?

```
tuple1 = (1, 2, 3)
tuple2 = (4, 5, 6)
result = tuple1 + tuple2
print(len(result))
```

   (a) 3
   (b) 6
   (c) 9
   (d) error

3. Which of the following statements about dictionaries in Python is correct?

   (a) Dictionaries are ordered collections of elements.
   (b) Dictionary elements are accessed using numerical indices.
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5. Which of the following statements about tuples in Python is true?

   (a) Tuples are mutable.
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```
my_tuple = ("apple", "banana", "cherry")
print(my_tuple[1])
```

   (a) "apple"
   (b) "banana"
   (c) "cherry"
   (d) Error

7. Which of the following is a valid way to remove an element from a list in Python?

   (a) list.remove(element)
   (b) list.pop(element)
   (c) list.delete(element)
   (d) list.clear(element)

8. In Python, what is the purpose of the `split()` method for strings?

   (a) It splits a string into a list of substrings.
   (b) It removes all spaces from a string.
   (c) It converts a string to uppercase.
   (d) It checks if a string contains a substring.

9. What will be the value of y after executing the following code?

```
x = (1, 2, 3)
y = x.append(4)
```

   (a) (1, 2, 3)
   (b) (1, 2, 3, 4)

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(c) 4

(d) Error

10. Which of the following is the correct way to open a file named `"data.txt"` in Python for reading?

(a) `file = open("data.txt", "r")`

(b) `file = open("data.txt", "w")`

(c) `file = open("data.txt", "a")`

(d) `file = open("data.txt", "x")`

11. Which of the following data types is mutable in Python?

(a) Tuple

(b) String

(c) Integer

(d) List

12. Medium: What is the output of the following code?

```
my_list = [1, 2, 3, 4, 5]
print(my_list[-3:])
```

a) [3, 4, 5]

b) [2, 3, 4]

c) [1, 2, 3]

d) [4, 5]

13. Medium: What does the `sort()` method do for a list in Python?

(a) Reverses the order of elements in the list.

(b) Sorts the list in descending order.

(c) Sorts the list in ascending order.

(d) Removes duplicates from the list.

14. Medium: What will be the output of the following code?

```
my_dict = {"apple": 1, "banana": 2, "cherry": 3}
print(len(my_dict))
```

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a) 0
b) 1
c) 2
d) 3

15. Hard: What is the purpose of the `lambda` keyword in Python?

(a) To define a variable with a constant value.
(b) To declare a function with a single expression.
(c) To create an anonymous function.
(d) To import external modules.

16. Hard: What will be the output of the following code?

```
my_string = "Hello, world!"
print(my_string[::-1])
```

a) "!dlrow ,olleH"
b) "Hello, world!"
c) "dlrow ,olleH!"
d) "world! ,Hello"

17. Easy: Which of the following is a correct way to check if a key exists in a dictionary?

(a) `key in dictionary`
(b) `key.exists(dictionary)`
(c) `dictionary[key]`
(d) `key.contains(dictionary)`

18. Medium: What is the difference between a set and a list in Python?

(a) Sets preserve the order of elements, while lists do not.
(b) Sets allow duplicate elements, while lists do not.
(c) Lists are mutable, while sets are immutable.
(d) Sets are enclosed in square brackets, while lists are enclosed in curly braces.

19. Medium: What does the `strip()` method do for strings in Python?

(a) Removes all whitespace characters from both ends of the string.
(b) Replaces specific characters in the string with a given substring.
(c) Splits the string into a list of substrings.

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(d) Returns the length of the string.

20. Easy: Which of the following is the correct way to comment a single line in Python?

(a) `# This is a comment`

(b) `/* This is a comment */`

(c) `<!-- This is a comment -->`

(d) `// This is a comment`

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Question CO Mapping	
Fundamentals of Python	
1	CO2
2	CO3
3	CO1,CO3
4	CO1,CO3
5	CO1,CO3
6	CO3
7	CO2, CO3
8	CO4
9	CO5
10	CO1,CO4
11	CO3
12	CO5
13	CO4
14	CO5
15	CO4
16	CO5
17	CO3
18	CO3,CO2
19	CO4
20	CO1,CO3

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FUNDAMENTALS OF PYTHON- 2021-25 BATCH

Sl.No	Name	CO1						CO2				
		Q3	Q4	Q5	Q10	Q20	TOTAL(5)	Q1	Q7	Q18	TOTAL(3)	TOTAL(5)
1	ABHIJITH RAJEEVAN	1	1	1	1	0	4	1	1	1	3	5
2	ABHINAV PV	1	1	1	1	0	4	1	1	0	2	3.33
3	ABHINAV S	0	1	1	1	0	3	1	1	1	3	5
4	ABHIRAJ V	1	0	1	1	0	3	1	1	0	2	3.33
5	ABHISHEK V.K	0	1	1	0	0	2	1	1	0	2	3.33
6	ABIN CS	1	1	1	1	1	5	1	1	0	2	3.33
7	AMEGH K	1	0	0	0	1	2	1	1	1	3	5
8	ARJUN V	1	1	1	1	0	4	1	1	1	3	5
9	ASHISH ARUN	1	1	1	1	0	4	1	1		2	3.33
10	ASHUTHOSH T	0	1	0	0	1	2	1	1	0	2	3.33
11	ASHWANTH SHAJI	1	1	1	1	0	4	1	1	1	3	5
12	ASWANTH K.M	1	1	1	1	0	4	1	1	1	3	5
13	JITHIN NAIR M	1	1	1	0	0	3	1	0	0	1	1.67
14	NANDANA VP	0	1	0	1	0	2	1	0	0	1	1.67
15	NAZAL NAJEEB K.T	1	1	1	0	0	3	1	1	1	3	5
16	NIRANJAN DEB PRASAD						0				0	0
17	PALAKKIL ASWANTH MOHAN	1	1	0	1	0	3	1	1	1	3	5
18	PARTHEEV KRISHNAN	0	1	0	0	0	1	1	0	1	2	3.33
19	PRANAV KC	1	0	0	0	0	1	1	1	0	2	3.33
21	RAZI ILYAS MK	1	1	1	1	0	4	1	1	0	2	3.33
22	SARANG M	1	1	1	0	0	3	1	1	0	2	3.33
24	SHANAT KS	0	1	1	1	0	3	1	1	1	3	5
25	SHARON MANAS VV	1	1	0	1	0	3	1	0	0	1	1.67
26	SHERFIN MB	0	0	1	0	0	1	1	0	0	1	1.67
27	SIJU BIJOY	0	0	1	1	0	2	1	1	1	3	5
28	THEERTHA N	0	1	0	0	0	1	1	1	0	2	3.33
29	VINAY KK	1	1	0	1	1	4	1	1	0	2	3.33
30	VINEETH BINOY	0	0	1	1	1	3	1	1	1	3	5
31	VYSHNAVI P	0	1	0	0	1	2	1	0	1	2	3.33
32	YADUNAND SAJITH	1	1	1	1	0	4	1	1	1	3	5

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CO3											CO4					
Q2	Q3	Q4	Q5	Q6	Q7	Q17	Q18	TOTAL(8)	TOTAL(5)	Q20	Q8	Q10	Q13	Q15	TOTAL	TOTAL(5)
1	1	1	1	1	1	1	1	8	5	0	1	1	1	1	4	5
0	1	1	1	1	1	1	0	6	3.75	0	1	1	0	0	2	2.5
1	0	1	1	1	1	1	1	7	4.38	0	1	1	1	0	3	3.75
0	1	0	1	0	1	0	0	3	1.88	0	0	1	1	1	3	3.75
0	0	1	1	1	1	0	0	4	2.5	0	1	0	1	0	2	2.5
1	1	1	1	1	1	0	0	6	3.75	1	1	1	1	0	4	5
1	1	0	0	0	1	0	1	4	2.5	1	0	0	0	0	1	1.25
1	1	1	1	1	1	0	1	7	4.38	0	1	1	1	1	4	5
1	1	1	1	0	1	1		6	3.75	0	0	1	1	1	3	3.75
1	0	1	0	0	1	0	0	3	1.88	1	0	0	1	0	2	2.5
1	1	1	1	1	1	1	1	8	5	0	1	1	1	1	4	5
1	1	1	1	1	1	1	1	8	5	0	1	1	0	1	3	3.75
1	1	1	1	1	0	1	0	6	3.75	0	1	0	1	1	3	3.75
1	0	1	0	1	0	0	0	3	1.88	0	0	1	1	0	2	2.5
0	1	1	1	0	1	0	1	5	3.13	0	1	0	1	1	3	3.75
								0	0						0	0
1	1	1	0	1	1	0	1	6	3.75	0	1	1	0	1	3	3.75
1	0	1	0	1	0	0	1	4	2.5	0	1	0	0	1	2	2.5
1	1	0	0	1	1	1	0	5	3.13	0	1	0	1	0	2	2.5
1	1	1	1	1	1	0	0	6	3.75	0	1	1	1	1	4	5
0	1	1	1	0	1	0	0	4	2.5	0	1	0	1	1	3	3.75
1	0	1	1	0	1	1	1	6	3.75	0	1	1	1	0	3	3.75
1	1	1	0	1	0	1	0	5	3.13	0	1	1	0	0	2	2.5
1	0	0	1	1	0	0	0	3	1.88	0	0	0	0	1	1	1.25
1	0	0	1	1	1	1	1	6	3.75	0	1	1	0	1	3	3.75
1	0	1	0	0	1	0	0	3	1.88	0	1	0	1	1	3	3.75
1	1	1	0	1	1	1	0	6	3.75	1	0	1	1	0	3	3.75
1	0	0	1	1	1	1	1	6	3.75	1	0	1	1	1	4	5
1	0	1	0	1	0	0	1	4	2.5	1	1	0	0	1	3	3.75
1	1	1	1	1	1	1	1	8	5	0	1	1	1	1	4	5

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CO5					
Q9	Q12	Q14	Q16	TOTAL(8)	CO
0	1	1	1	16	8.89
0	0	1	1	8.5	4.72
1	1	0	0	11.75	6.53
0	1	0	1	11.75	6.53
0	0	1	1	8.5	4.72
0	0	0	1	14	7.78
0	0	1	1	5.25	2.92
1	0	1	1	16	8.89
0	1	1	1	12.75	7.08
1	0	0	1	8.5	4.72
1	1	1	0	16	8.89
1	0	1	1	12.75	7.08
0	1	1	0	11.75	6.53
0	0	1	0	7.5	4.17
0	0	1	1	11.75	6.53
				0	0.00
1	1	1	1	13.75	7.64
0	1	0	1	8.5	4.72
0	1	1	0	8.5	4.72
1	1	1	1	17	9.44
0	1	0	1	11.75	6.53
0	0	0	0	9.75	5.42
0	0	1	1	8.5	4.72
1	0	0	0	4.25	2.36
0	1	1	1	12.75	7.08
0	1	0	1	11.75	6.53
0	1	1	1	12.75	7.08
1	0	1	0	15	8.33
0	1	0	0	10.75	5.97
1	0	0	1	15	8.33

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CO ATTAINMENT

Level 1 : >=40% of students has to get 50% marks
Level 2 : >=60% of students has to get 50% marks
Level 3 : >= 80% of students has to get 50% marks

Sl.No	Name	CO1 TOTAL(5)	CO2 TOTAL(5)	CO3 TOTAL(5)	CO4 TOTAL(5)	CO5 TOTAL(5)
1	ABHIJITH RAJEEVAN	4.0	6.7	4.2	5.2	2.9
2	ABHINAV PV	4.0	6.7	4.2	5.2	2.9
3	ABHINAV S	3.0	5.0	3.1	3.9	2.2
4	ABHIRAJ V	3.0	5.0	3.1	3.9	2.2
5	ABHISHEK V.K	2.0	3.3	2.1	2.6	1.4
6	ABIN CS	5.0	8.3	5.2	6.5	3.6
7	AMEGH K	2.0	3.3	2.1	2.6	1.4
8	ARJUN V	4.0	6.7	4.2	5.2	2.9
9	ASHISH ARUN	4.0	6.7	4.2	5.2	2.9
10	ASHUTHOSH T	2.0	3.3	2.1	2.6	1.4
11	ASHWANTH SHAJI	4.0	6.7	4.2	5.2	2.9
12	ASWANTH K.M	4.0	6.7	4.2	5.2	2.9
13	JITHIN NAIR M	3.0	5.0	3.1	3.9	2.2
14	NANDANA VP	2.0	3.3	2.1	2.6	1.4
15	NAZAL NAJEEB K.T	3.0	5.0	3.1	3.9	2.2
16	NIRANJAN DEB PRASAD	0.0	0.0	0.0	0.0	0.0
17	PALAKKIL ASWANTH MOHAN	3.0	5.0	3.1	3.9	2.2
18	PARTHEEV KRISHNAN	1.0	1.7	1.0	1.3	0.7
19	PRANAV KC	1.0	1.7	1.0	1.3	0.7
21	RAZI ILYAS MK	4.0	6.7	4.2	5.2	2.9
22	SARANG M	3.0	5.0	3.1	3.9	2.2
24	SHANAT KS	3.0	5.0	3.1	3.9	2.2
25	SHARON MANAS VV	3.0	5.0	3.1	3.9	2.2
26	SHERFIN MB	1.0	1.7	1.0	1.3	0.7
27	SIJU BIJOY	2.0	3.3	2.1	2.6	1.4
28	THEERTHA N	1.0	1.7	1.0	1.3	0.7
29	VINAY KK	4.0	6.7	4.2	5.2	2.9
30	VINEETH BINOY	3.0	5.0	3.1	3.9	2.2
31	VYSHNAVI P	2.0	3.3	2.1	2.6	1.4
32	YADUNAND SAJITH	4.0	6.7	4.2	5.2	2.9
No.of students students with more than 50% marks		19.0	25	19	25	10
% of students with more than 50% marks		65.51724138	86.2069	65.51724	86.2069	34.4828
Attained Level		2	3	2	3	0.86

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PO ATTAINMENT

	CO ATTAINMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2		2				3				3	2		3
CO2	3		3	3	2	2	3				3	2		3
CO3	2		3	2			3				3	2		3
CO4	3		3	3	3	3	3				3	2	3	3
CO5	0.86						3		3		3	2		3
PO ATTAINMENT		2.333333	2.444444	2.5	2.5	2.172	0.86		0.86	2.172	1.448	3	2.172	

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PSO1	PSO2
2	2
2	2
2	2
2	2
2	2
1.448	1.448

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VIMAL JYOTHI ENGINEERING COLLEGE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value added course Impact Report

Name of Program: Fundamentals of Python
Type of Course: Hands on Training
Date: From 14th March 2023 to 18th March 2023
Semester and academic year: S4, 2022-23
Duration (no of days):5
Batch: S4, EEE

a. Knowledge acquired (knowledge you gained through your training experience and relate this knowledge to what you learned in specific courses at the college)

The training on "Fundamentals of Python" helped the students to acquire knowledge in one of the modern tool "Python" and helped to build the programming skills. The session provides an overview of programming to the laboratory course Power systems and power electronics.

b. Skills learned: (skills and any career-specific abilities that you gained during your internship like technical skills, problem analysis, etc. Discuss any of the skills that you learned as part of courses at the college)

Programming skills

c. Impact analysis: Compare the **knowledge and skills sets** that you gained (mentioned as per para a & b above) before and after your training

Use scale from 1 to 5

Poor = 1 fair = 2, good = 3, very good = 4 and excellent = 5

Sl. No	Knowledge/Skills	Before	After
1	Modern tool usage	1	3
2	Programming skills	1	3
3	Team activity involvement	2	3

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d). Connected POs & PSOs Attainment

(Select **relevant POs /PSOs** and rate the same for the Training undergone)

Use scale from 1 to 3

1 –Poor, 2-Medim, 3- High

POs	Rating			POs	Rating			PSOs	Rating		
	3	2	1		3	2	1		3	2	1
PO 1		2		PO 7				PSO 1			1
PO 2		2		PO 8			1	PSO 2			1
PO 3		2		PO 9		2					
PO4			1	PO 10			1				
PO 5		2		PO 11		2					
PO 6		2		PO 12		2					

| Program Outcomes (POs)

Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/ Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

- **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

| Program Specific Outcomes (PSOs)

- Apply the knowledge of electrical fundamentals, circuit design, control engineering, analog & digital electronics to the field of electrical & electronics systems in industry.
- Develop technical knowledge, skill, and competence to identify comprehend and solve problems in research and academic related to power system engineering, industrial drives & control.

| Program Educational Objectives (PEOs)

- Graduates will achieve broad and in-depth knowledge of Electrical & Electronics Engineering relating to industrial practices and research to analyze the practical problems and think creatively to generate innovative solutions using appropriate technologies.
- Graduates will make valid judgment, synthesize information from a range of sources and communicate them in sound ways appropriate to the discipline.
- Graduates will sustain intellectual curiosity and pursue lifelong learning not only in areas that are relevant to Electrical & Electronics Engineering, but also that are important to society
- Graduates will adapt to different roles and demonstrate leadership in global working environment by respecting diversity, professionalism and ethical practices.

Vision

To evolve as a centre of excellence, to train students in contemporary technologies, to meet the needs of global industry and to develop them into skillful engineers instilled with human values and professional ethics.

Mission

To produce competent and disciplined Electrical & Electronics Engineers through delivery of quality education to meet the ongoing global challenges in alignment with technical education system and society

Tutor's Signature

LALY JAMES
HOD EEE

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