U.S.N ☐☐☐☐☐☐☐☐☐☐

P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Second Semester, B.E. - Semester End Examination; Sep. / Oct. - 2023

Introduction to Python Programming

(Common to AU, CV, EC, IP and ME)

Time: 3 hrs   *Max. Marks: 100*

Course Outcomes

The Students will be able to:

CO1: Demonstrate proficiency in handling loops and creation of functions.

CO2: Identify the methods to create and manipulate lists, tuples and dictionaries.

CO3: Develop programs for string processing and file organization.

CO4: Interpret the concepts of Object-Oriented Programming as used in Python.

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Note: *I) PART - A is compulsory. Two marks for each question.*

    II) PART - B: Answer any Two sub questions (from a, b, c) for a Maximum of 18 marks from each unit.

Q. No.	Questions	Marks	BLs	COs	POs
	I : PART - A	**10**			
1 a.	What is break statement and continue statement?	2	L1	CO1	PO1
b.	What is list data type and tuple data type?	2	L1	CO2	PO1
c.	What is the function of isUpper( ) and isLower( ) methods?	2	L1	CO3	PO2
d.	What is shutil module and assertion?	2	L1	CO3	PO1
e.	What are object-oriented features in python?	2	L1	CO4	PO1
	II : PART - B	**90**			
	UNIT - I	**18**			
2 a.	Write a simple python program and explain each line of a code.	9	L2	CO1	PO2
b.	Discuss loops and range( ) function with example and flowchart.	9	L2	CO1	PO2
c.	Describe how to define and call a function and also explain how to pass arguments and parameters to function using suitable example.	9	L2	CO1	PO2
	UNIT - II	**18**			
3 a.	Describe how to find and add values in a list using index( ), append and insert( ) methods.	9	L2	CO2	PO1
b.	Explain the use of following methods with their syntax; i) keys( ) ii) values( ) iii) items( ) iv) setdefault( )	9	L2	CO2	PO2
c.	Design a Tic – Tac – Toc board using python.	9	L3	CO2	PO3

UNIT - III　　　　　　　　　　　　**18**

4 a.　Find the output of the following code:

　　　i) spam = "Hello,world!"

　　　　upam = spam.upper( )

　　　　lpam = spam.lower( )

　　　　print(upam)

　　　　print(lpam)

　　　ii) spam = "Hello123"

　　　　print(spam.isalph (1))

　　　　print(spam.isalnum(1))　　　　　　　　9　L2　CO3　PO2

　　　　print(spam.isdecim(1))

　　　iii) spam = "Hello123"

　　　　print(spam.endswith('12'))

　　　　print(spam.startswith('Hell'))

　　　iv) before, sep, after = 'Hello, world!".partition('')

　　　　print(before)

　　　　print(after)

b.	Design updatable multi-clipboard.	9	L3	CO3	PO3
c.	Describe how to save variables with the pprint.pformat( ) function.	9	L2	CO3	PO1

UNIT - IV　　　　　　　　　　　　**18**

5 a.	Discuss compressing files with zip file module.	9	L2	CO3	PO1
b.	Develop a program to backing up a folder into a ZIP file.	9	L3	CO3	PO3
c.	Explain how exceptions are raised and illustrate with a program.	9	L2	CO3	PO2

UNIT - V　　　　　　　　　　　　**18**

6 a.	Discuss pure functions and modifiers in python.	9	L2	CO4	PO1
b.	Explain type based dispatch with example.	9	L2	CO4	PO1
c.	Explain classes and objects in python.	9	L2	CO4	PO2

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