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G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.



PG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.

(For those admitted in June 2023 and later)

PROGRAMME AND BRANCH: M.Sc., MATHEMATICS

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
II	PART- III	CORE ELECTIVE - 4	P23MA2E4B	PYTHON LANGUAGE

Date & Session : 03.05.2025/AN

Time : 3 hours

Maximum: 75 Marks

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer <u>ALL</u> Questions.
CO1	K1	1.	What is the output of ['name!'] * 2? a) ['name!'] * 2 b) ['name!', 'name!'] c) ['name!', 'name!'] d) ['name!'] * 2
CO1	K2	2.	Select the immutable data type from the following: a) list b) dictionary c) tuple d) set
CO2	K1	3.	What will be the output of str [0:4] if str = "Hello"? a) 'Hello' b) 'H' c) 'Hel' d) 'Hell'
CO2	K2	4.	Select the correct Python logical operator: a) && b) and c) d) xor
CO3	K1	5.	What are the advantages of using functions? a) Reduce duplication of code b) Clarity of code c) Reuse code d) All
CO3	K2	6.	Trace the output of the following function call: def add(x, y=5): return x + y print(add(3)) a) 3 b) 8 c) Error d) None
CO4	K1	7.	What is the correct way to define a string in Python? a) "Hello" b) 'Hello' c) ""Hello"" d) All of the above
CO4	K2	8.	Classify the following as a valid dictionary syntax: a) {1: "One", 2: "Two"} b) [1: "One", 2: "Two"] c) {1=>"One", 2=>"Two"} d) dict(1= "One", 2= "Two")
CO5	K1	9.	Which of the following functions is used to open a file in python? a) Open{ } b) open() c) open [] d) Open ()
CO5	K2	10.	Select the correct mode for opening a file in write mode: a) "r" b) "w" c) "a" d) "r+"

Course Outcome	Bloom's K-level	Q. No.	SECTION – B (5 X 5 = 25 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K2	11a.	Explain Python Identifiers. (OR)
CO1	K2	11b.	List any five reserved keywords in Python and explain their significance.
CO2	K2	12a.	Write a program to find whether a number is even or odd? (OR)
CO2	K2	12b.	Write about Membership and identity operator.
CO3	K3	13a.	Write about type conversion. (OR)
CO3	K3	13b.	Compare built-in functions and user-defined functions with examples.
CO4	K3	14a.	How are the values in a tuples accessed? (OR)
CO4	K3	14b.	Analyze the concept of slicing in strings.
CO5	K4	15a.	What is object-oriented programming? (OR)
CO5	K4	15b.	Justify the use of try-except blocks in Python.

Course Outcome	Bloom's K-level	Q. No	SECTION – C (5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K4	16a.	What are the key features of Python? (OR)
CO1	K4	16b.	Build a Python script that utilizes comments, variables, and standard data types to perform basic arithmetic operations.
CO2	K5	17a.	Explain types of operators in Python with appropriate examples. (OR)
CO2	K5	17b.	Explain for loop, while statement in python.
CO3	K5	18a.	Explain Date and Time with examples. (OR)
CO3	K5	18b.	Survey how functions interact with parameters and arguments in Python.
CO4	K5	19a.	Explain String Slices with examples (OR)
CO4	K5	19b.	Evaluate the advantages of dictionaries over lists.
CO5	K6	20a.	Explain Inheritance and Multiple inheritance. Give syntax for both. (OR)
CO5	K6	20b.	Prove the need for exception handling with real-world examples.