Gayatri Vidya Parishad College of Engineering for Women
(Autonomous)
(Affiliated to Andhra University, Visakhapatnam)
Madhurawada, Visakhapatnam

II B.Tech. - I Semester Regular Examinations, Nov – 2025

PYTHON PROGRAMING - 24CT11RC06

(EEE Branch)

Scheme of Valuation

Q No	Question
	UNIT–I

1(a)	**Applications of Python in different domains (7M)**
	• Introduction to Python (1M)
	• Explanation of multiple domains such as:
	  ○ Web development (1M)
	  ○ Data Science & Analytics (1M)
	  ○ AI/ML (1M)
	  ○ Automation/Scripting (1M)
	  ○ Scientific computing / IoT / Cybersecurity etc. (1M)
	• Conclusion (1M)

1 (b)	**Input & Output statements + Program to add two numbers (7M)** • Definition of input statement (1M) • Definition of output/print statement (1M) • Explanation of syntax of input() (1M) • Python program for adding two numbers (3M) • Correct output or explanation (1M)
2(a)	**Historical development & necessity of Python (7M)** • Origin & creation by Guido van Rossum (2M) • Key milestones/version evolution (2M) • Necessity: simplicity, readability, portability, libraries, etc. (3M)
2(b)	**Indentation concept & example (7M)** • Definition of indentation (2M) • Significance in Python (2M) • Correct example program showing indentation (3M)
	UNIT–II
3(a)	**Types of Python operators (7M)** • Listing operators: Arithmetic, Relational, Logical, Bitwise, Assignment, Membership, Identity (2M) • Any 4 operators explained with examples (4M) • Conclusion/summary (1M)
3(b)	**Loops + Factorial using while loop (7M)** • Definition of loops (1M) • Types of loops: for, while (1M) • Explanation of while loop (1M) • Factorial program using while loop (3M) • Correct output or explanation (1M)
4(a)	**Conditional Statements + program (7M)** • Definition of conditional statements (2M) • Syntax of if–elif–else (2M) • Program to categorize number (positive/negative/zero) (3M)

4(b)	**Membership & Identity operators (7M)** • Definition of membership operator (in, not in) (2M) • Examples (1M) • Definition of identity operator (is, is not) (2M) • Examples (2M)
	UNIT–III
5(a)	**Slicing & Indexing on lists and strings (7M)** • Definition of indexing (1M) • Examples of positive & negative indexing (2M) • Definition of slicing (1M) • Slicing examples on strings and lists (3M)
5(b)	**Dictionary operations (7M)** • Adding key–value pair (2M) • Updating value (2M) • Deleting key–value pair (using del/pop/popitem) (2M) • Example programs (1M)
6(a)	**Advanced Data Structures (7M)** • Explanation of any 3–4 structures: tuple, set, dictionary, stack, queue, deque, heap, etc. (5M) • Examples (2M)
6(b)	**Comprehension + list & set examples (7M)** • Definition of comprehension (2M) • List comprehension example (2M) • Set comprehension example (2M) • Explanation (1M)
	UNIT–IV

7(a)	**Types of function arguments (7M)**
	• Explanation of:
	  ○ Positional arguments
	  ○ Keyword arguments
	  ○ Default arguments
	  ○ Variable-length (*args)
	  ○ Keyword variable-length (**kwargs) (5M)
	• Examples (2M)

7(b)	**Creating & importing modules (7M)** • Definition of module (1M) • Creating a simple module (2M) • Importing module: import, from-import (2M) • Example (2M)
8(a)	**Lambda function + filter() example (7M)** • Definition of lambda function (2M) • Syntax (1M) • Explanation of filter() (2M) • Correct example using lambda + filter (2M)
8(b)	**PIP: installation & management (7M)** • Definition of PIP (1M) • Commands: install, uninstall, list, show (3–4M) • Explanation of package management (2M)

UNIT–V	
9(a)	**Classes & objects + program (7M)** • Definition of class (1M) • Definition of object (1M) • Syntax and explanation (1M) • Program defining class + creating objects (3M) • Output/explanation (1M)
9(b)	**Exception handling: try–except–finally (7M)** • Concept of exceptions (1M) • Explanation of try block (1M) • Explanation of except block (1M) • Explanation of finally block (1–2M) • Example program (2M)
10(a)	**Inheritance & types (7M)** • Definition of inheritance (2M) • Types (3M total) • Any example (2M)
10(b)	**File handling operations (7M)** • Explanation of open(), read(), write(), close() (4M) • Modes of opening files: r, w, a, r+, w+, a+ (2M) • Example program (1M)

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