Question Paper Code	13747

B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2025
Second Semester
Computer Science and Engineering
20ESIT202 – PYTHON PROGRAMMING
Regulations - 2020

Duration: 3 Hours   Max. Marks: 100

PART - A (MCQ) (10 × 1 = 10 Marks)
Answer ALL Questions

		Marks	K–Level	CO
1.	Code block indicated in python using (a) Brackets (b) Indentation (c) key (d) none of the above	1	K1	CO1
2.	The output of the following code snippet is print(type(5/2)) print(type(5//2)) (a) float and int (b) int and float (c) float and float (d) int and int	1	K2	CO1
3.	The syntax of for loop in python (a) for item in sequence: (b) for item in range(n): (c) for index in range(len(sequence)): (d) All of the above	1	K2	CO2
4.	The purpose of pass statement in python (a) to exit from a loop prematurely (b) to skip the current iteration of a loop (c) to execute a block of code if a condition is false (d) to do nothing and act as a placeholder	1	K1	CO2
5.	Which of the following statement is true about packages in python? (a) packages are collection of modules (b) packages are collection of functions (c) packages are used for mathematical operations (d) packages are used for string manipulation	1	K1	CO3
6.	How can you create a python package? (a) by creating a directory with a special __init__.py file (b) by creating a text file with a list of module names (c) by using the package keyword followed by the package name (d) by importing modules from other packages	1	K1	CO3
7.	The keyword used to catch exceptions in python is (a) try (b) catch (c) except (d) handle	1	K1	CO4
8.	Which of the following is not a standard python exception? (a) KeyError (b) ValueException (c) IndexError (d) TypeError	1	K2	CO4
9.	The correct way to plot a line graph is (a) plot(x,y) (b) plt.plot(x,y) (c) plt(x,y) (d) plot.plt(x,y)	1	K1	CO5
10.	The full form of csv is (a) comma separated values (b) comma separated vertex (c) comma separated variables (d) comma separate value	1	K1	CO6

PART - B (12 × 2 = 24 Marks)
Answer ALL Questions

		Marks	K–Level	CO
11.	Define Membership operators in Python.	2	K1	CO1
12.	List out standard data types in Python.	2	K1	CO1

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create   **13747**

13.	Find the result of the following expression in python 2**3+5**2	2	K2	CO2
14.	Illustrate string slicing with an example.	2	K2	CO2
15.	List the importance of fruitful functions.	2	K1	CO3
16.	Write Python code to calculate the area of a circle using the concept of functions.	2	K3	CO3
17.	Illustrate command line arguments with an example.	2	K2	CO4
18.	Define exception with an example.	2	K1	CO4
19.	Define Pandas Series with an example.	2	K1	CO5
20.	Define Data Frame with an example.	2	K1	CO5
21.	List some python packages.	2	K1	CO6
22.	Write a program for student class.	2	K2	CO6

PART - C (6 × 11 = 66 Marks)
Answer ALL Questions

| 23. | a) | Explain Conditional if, alternative if, and chained conditional statements with syntax, flowchart and example Python Programs. | 11 | K2 | CO1 |

OR

| | b) | Explain for loop and while loop in Python with its syntax, flowchart and example Programs. | 11 | K2 | CO1 |

| 24. | a) | Explain in detail about set operations and methods with suitable examples. | 11 | K2 | CO2 |

OR

| | b) | Explain the different operations and methods in dictionaries with suitable examples. | 11 | K2 | CO2 |

| 25. | a) (i) | Write a recursive algorithm to find factorial of a given number. | 6 | K2 | CO3 |
| | (ii) | Expalin list comprehension with example. | 5 | K2 | CO3 |

OR

| | b) | Define modules in Python. Write down the steps to import them. Explain the concept by creating and importing the module. | 11 | K2 | CO3 |

| 26. | a) | Explain in brief the file handling methods available in python with appropriate example. | 11 | K2 | CO4 |

OR

| | b) | Illustrate the exception handling methods available in python. | 11 | K2 | CO4 |

| 27. | a) (i) | Explain Broadcasting in Numpy Array Operations. | 6 | K3 | CO5 |
| | (ii) | Explain Array Indexing in Numpy. | 5 | K3 | CO5 |

OR

| | b) | Explain Matplotlib and display of different plots with examples. | 11 | K3 | CO5 |

| 28. | a) | Write a python program to illustrate public, protected and private access modifier in a class. | 11 | K3 | CO6 |

OR

| | b) | Write a python program for solving linear system of equations. | 11 | K3 | CO6 |

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

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