

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI****END-OF-SEMESTER EXAMINATIONS : NOVEMBER 2024****B.Sc CS WITH AI & ML****MAXIMUM MARKS: 75****SEMESTER III****TIME : 3 HOURS****PART - III****23UAI307- PYTHON PROGRAMMING****SECTION – A****(10 X 1 = 10 MARKS)****ANSWER THE FOLLOWING QUESTIONS.****(K1)**

1. Identify the invalid identifier below.
  - a. \_2017discount
  - b. Profit
  - c. Total-discount
  - d. Totaldiscount
2. The function that is used to find the length of the string is
  - a. len(string)
  - b. length(string)
  - c. len[string]
  - d. length[string]
3. What is the output of the following code snippet?  

```
islands = [111,222,300,411,546]
max(islands)
```

  - a. 300
  - b. 222
  - c. 546
  - d. 111
4. Which of the following cannot be used as a key in Python dictionaries?
  - a. Strings
  - b. Lists
  - c. Tuples
  - d. Numerical values
5. Which of the following is a mutable type?
  - a. Strings
  - b. Lists
  - c. Tuples
  - d. Frozenset

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES****(K2)**

6. Which symbol is used to give the single line comment?
7. Which method that is used to count the number of times, an item has occurred in the list?
8. Who developed Python Programming?
9. What is unpickling?
10. A blueprint that defines the objects of the same type is called as what?

**SECTION – B****(5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Write a short note on data types in Python.  
(OR)  
b) Explain the syntax of for loop with an example
12. a) Write Python Code to Determine Whether the Given String  
Is a Palindrome or Not Using Slicing  
(OR)  
b) Explain the different ways in which the lists can be created.

13. a) Explain the Built-In functions used on Dictionaries.  
 (OR)  
 b) Briefly explain the slice operation of tuples with an example.

14. a) Define File and explain the different types of Files.  
 (OR)  
 b) Compare and contrast the use of match() and search() methods with an example.

15. a) Explain Classes and Objects with examples.  
 (OR)  
 b) Describe Iterators and Generators in Python.

**SECTION – C****(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4 (Or) K5)**

16. a) Explain the different Operators in Python with examples.  
 (OR)  
 b) Briefly explain the conditional statements available in Python.

17. a) Explain String operator with an example  
 (OR)  
 b) Explain the different list methods with an example

18. a) Write short notes on the following methods.  
 i. keys()  
 ii. values()  
 iii. get(key)  
 iv. clear()  
 (OR)  
 b) Discuss the Various Set Methods in Python

19. a) Explain the different file mode operations with examples  
 (OR)  
 b) Define regular expression and list all the advantages of the regular expression.

20. a) Examine the different types of inheritances with an example  
 (OR)  
 b) Define JSON. Construct a simple JSON document and write Pythonic code to parse JSON document.

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