1. What is Python? What are the benefits of using Python

2. What is a dynamically typed language?

3. What is an Interpreted language?

4. What is PEP 8 and why is it important?

5. What is Scope in Python?

6. What are lists and tuples? What is the key difference between the two?

7. What are the common built-in data types in Python?

8. What is pass in Python?

9. What are modules and packages in Python?

10. What are global, protected and private attributes in Python?

11. What is the use of self in Python?

12. What is __init__?

13. What is break, continue and pass in Python?

14. What are unit tests in Python?

15. What is docstring in Python?

16. What is slicing in Python?

17. Explain how can you make a Python Script executable on Unix?

18. What is the difference between Python Arrays and lists?

19. How is memory managed in Python?

20. What are Python namespaces? Why are they used?

21. What is Scope Resolution in Python?

22. What are decorators in Python?

23. What are Dict and List comprehensions?

24. What is lambda in Python? Why is it used?

25. How do you copy an object in Python?

26. What is the difference between xrange and range in Python?

27. What is pickling and unpickling?

28. What are generators in Python?

29. What is PYTHONPATH in Python?

30. What is the use of help() and dir() functions?

31. What is the difference between .py and .pyc files?

32. How Python is interpreted?

33. How are arguments passed by value or by reference in python?

34. What are iterators in Python?

35. Explain how to delete a file in Python?

36. Explain split() and join() functions in Python?

37. What does *args and **kwargs mean?

38. What are negative indexes and why are they used?

39. How do you create a class in Python?

40. How does inheritance work in python? Explain it with an example.

41. How do you access parent members in the child class?

42. Are access specifiers used in python?

43. Is it possible to call parent class without its instance creation?

44. How is an empty class created in python?

45. Differentiate between new and override modifiers.

46. Why is finalize used?

47. What is init method in python?

48. How will you check if a class is a child of another class?

49. What do you know about pandas?

50. Define pandas dataframe.

51. How will you combine different pandas dataframes?

52. Can you create a series from the dictionary object in pandas?

53. How will you identify and deal with missing values in a dataframe?

54. What do you understand by reindexing in pandas?

55. How to add new column to pandas dataframe?

56. How will you delete indices, rows and columns from a dataframe?

57. Can you get items of series A that are not available in another series B?

58. How will you get the items that are not common to both the given series A and B?

59. While importing data from different sources, can the pandas library recognize dates?

60. What do you understand by NumPy?

61. How are NumPy arrays advantageous over python lists?

62. What are the steps to create 1D, 2D and 3D arrays?

63. You are given a numpy array and a new column as inputs. How will you delete the second column and replace the column with a new column value?

64. How will you efficiently load data from a text file?

65. How will you read CSV data into an array in NumPy?

66. How will you sort the array based on the Nth column?

67. How will you find the nearest value in a given numpy array?

68. How will you reverse the numpy array using one line of code?

69. How will you find the shape of any given NumPy array?

70. Differentiate between a package and a module in python.

71. What are some of the most commonly used built-in modules in Python?

72. What are lambda functions?

73. How can you generate random numbers?

74. Can you easily check if all characters in the given string is alphanumeric?

75. What are the differences between pickling and unpickling?

76. Define GIL.

77. Define PYTHONPATH.

78. Define PIP.

79. Are there any tools for identifying bugs and performing static analysis in python?

80. Differentiate between deep and shallow copies.

81. What is main function in python? How do you invoke it?

82. Write python function which takes a variable number of arguments.

83. WAP (Write a program) which takes a sequence of numbers and check if all numbers are unique.

84. Write a program for counting the number of every character of a given text file.

85. Write a program to check and return the pairs of a given array A whose sum value is equal to a target value N.

86. Write a Program to add two integers >0 without using the plus operator.

87. Write a Program to solve the given equation assuming that a,b,c,m,n,o are constants:

88. Write a Program to match a string that has the letter ‘a’ followed by 4 to 8 'b’s.

89. Write a Program to convert date from yyyy-mm-dd format to dd-mm-yyyy format.

90. Write a Program to combine two different dictionaries. While combining, if you find the same keys, you can add the values of these same keys. Output the new dictionary

91. How will you access the dataset of a publicly shared spreadsheet in CSV format stored in Google Drive?