1. In the below elements which of them are values or an expression? eg:- values can be integer or string and expressions will be mathematical operators.

\*

'hello'

-87.8

-

/

6

2. What is the difference between string and variable?

3. Describe three different data types.

4. What is an expression made up of? What do all expressions do?

5. This assignment statements, like spam = 10. What is the difference between an expression and a statement?

6. After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

7. What should the values of the following two terms be?

'spam' + 'spamspam'

'spam' \* 3

8. Why is eggs a valid variable name while 100 is invalid?

9. What three functions can be used to get the integer, floating-point number, or string version of a value?

10. Why does this expression cause an error? How can you fix it?

'I have eaten ' + 99 + ' burritos.'

11. When would you choose between a list, set, and tuple in a data-heavy application?

12. What is the output of this code? Why?

data = [1, 2, 2, 3]

print(set(data))

print(tuple(set(data)))

13.Which data structure would you use for storing timestamped logs for fast searching and retrieval?

14. Which data type fits best for representing sensor data like (lat, long, temperature)?Why?

15. When would you choose bytearray over bytes?

16. Explain mutability of list, tuple, dict, and set. Why does immutability matter in multithreading?

17. Should you use a list or tuple to store a constant list of countries in an API?

18. You want to store all unique product IDs from a CSV. Which data type do you use?

19. Print the given strings as per stated format.

Given strings: "Data" "Science" "Program"

Output: Data-Science-Program

20. Print the given strings "Python", "Is", "Fun" in the format below using the print() function:

Output: Python\*\*\*Is\*\*\*Fun