1. What is the name of the feature responsible for generating Regex objects?

re.compile() function

1. Why do raw strings often appear in Regex objects?

Raw strings are used so that backslashes do not have to be escaped.

1. What is the return value of the search() method?

if it finds the pattern then it returns match object else none.

1. From a Match item, how do you get the actual strings that match the pattern?

Group() method return match pattern

1. In the regex which created from the r'(\d\d\d)-(\d\d\d-\d\d\d\d)', what does group zero cover? Group 2? Group 1?

Group0 is for entire string

Group1 is for text within first set of parenthesis

Group2 is for text within 2nd set of parenthesis

6. In standard expression syntax, parentheses and intervals have distinct meanings. How can you tell a regex that you want it to fit real parentheses and periods? \., \(, and \)

7. The findall() method returns a string list or a list of string tuples. What causes it to return one of the two options?

when we enclose our pattern inside "()" it will return tuple when we enclose our pattern without using "()" it will return tuple

8. In standard expressions, what does the | character mean? Either or or

9. In regular expressions, what does the character stand for? Which character

10.In regular expressions, what is the difference between the + and \* characters?

+ means one or more \* means zero or more

11. What is the difference between {4} and {4,5} in regular expression?

{4} Matches to its left 4 times, and not less. {4,5) Matches the to its left 4 to 5 times, and not less.

12. What do you mean by the \d, \w, and \s shorthand character classes signify in regular expressions?

\d – for digits

\w – for alphabets

\s - space

13. What do means by \D, \W, and \S shorthand character classes signify in regular expressions?

\D – matches non digits

\W- matches non alphabets

\S- matches non space characters

14. What is the difference between .\*? and .\*?

15. What is the syntax for matching both numbers and lowercase letters with a character class? [0-9a-z]

16. What is the procedure for making a normal expression in regax case insensitive? Case\_insensitive flag or using modifier

17. What does the . character normally match? What does it match if re.DOTALL is passed as 2nd argument in re.compile()?

It will match all the characters

18. If numReg = re.compile(r'\d+'), what will numRegex.sub('X', '11 drummers, 10 pipers, five rings, 4 hen') return?

'X drummers, X pipers, five rings, X hens'

19. What does passing re.VERBOSE as the 2nd argument to re.compile() allow to do?

It allows us to add sspace and comments to the string

20. How would you write a regex that match a number with comma for every three digits? It must match the given following:

'42'

'1,234'

'6,368,745'

but not the following:

'12,34,567' (which has only two digits between the commas)

'1234' (which lacks commas)

re.compile(r'^\d{1,3}(,\d**{3}**)\*$')

21. How would you write a regex that matches the full name of someone whose last name is Watanabe? You can assume that the first name that comes before it will always be one word that begins with a capital letter. The regex must match the following:

'Haruto Watanabe'

'Alice Watanabe'

'RoboCop Watanabe'

but not the following:

'haruto Watanabe' (where the first name is not capitalized)

'Mr. Watanabe' (where the preceding word has a nonletter character)

'Watanabe' (which has no first name)

'Haruto watanabe' (where Watanabe is not capitalized)

re.compile(r'[A-Z][a-z]\*\sNakamoto')

22. How would you write a regex that matches a sentence where the first word is either Alice, Bob, or Carol; the second word is either eats, pets, or throws; the third word is apples, cats, or baseballs; and the sentence ends with a period? This regex should be case-insensitive. It must match the following:

'Alice eats apples.'

'Bob pets cats.'

'Carol throws baseballs.'

'Alice throws Apples.'

'BOB EATS CATS.'

but not the following:

'RoboCop eats apples.'

'ALICE THROWS FOOTBALLS.'

'Carol eats 7 cats.'

re.compile(r'(Alice|Bob|Carol)\s(eats|pets|throws)\(apples|cats|baseballs)\.', re.IGNORECASE)