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

The name of the feature responsible for generating regex object is re.compile().

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

Raw strings often appear in regex objects to avoid escaping of backlashes from any object.

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

The return value of search() method is it finds all the match objects or none.

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

The Group() method is responsible to get the actual strings.

5. 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?

Group()- brings the entire set

Group 2 brings the second set of parenthesis

Group 1 brings the first 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?

A backlash is mainly preferred in such cases \ or , .

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

string list is return when there are no groups

String tuples are returned when there are groups

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

It stands to create an expression of either/or.

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

Regular expressions (shortened as "regex") are special strings representing a pattern to be matched in a search operation. They are an important tool in a wide variety of computing application.

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

+- stands for one or more occurrences

\*- stands for zero or more occurrences

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

{4}- is 4 iterations for the previous group and {4,5} means the iterations from 4 to 5

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

\d- This means it is a digit character

\w- This means it is a word character

\s- This means it is a space character

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

\D- This means it is a not a digit

\W- This means it is a not a word

\S- This means it is a not a space

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

\* is the greedy type and will pair with all cases and back till 1

\*? is the non greedy type and will try to match the characters.

15. What is the syntax for matching both numbers and lowercase letters with a character class?

[0-9a-z] or [a-z0-9]

16. What is the procedure for making a normal expression in regax case insensitive?

The procedure for making a normal expression in regax case insensitive is by using re.compile()

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

. - It helps to pair and match any character accept newline.

The re.DOTALL helps to pair and match all characters including newline.

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 whitespace and comments to the string passed to re.compile().

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)

Answer : 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)

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

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.'

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