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

re.compile()

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

Raw strings helps to use the escape characters as a normal string.

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

The search() method returns Match objects.

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

To get the actual matched strings group() method should be used.

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?**

group zero – covers the entire match.

group 1 – covers first set of parentheses r'(\d\d\d)-(\d\d\d-\d\d\d\d)'.

group 2 – covers the second set of parentheses r'(\d\d\d)-(\d\d\d-\d\d\d\d)'.

1. **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?**

Parentheses and periods can be fitted in a regex by using the escape with backslash (\).

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

If group() is used in regex list of string tuples is returned. If group() is not used string list will be returned.

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

| - pipe symbol represents ‘or’

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

Which character?

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

+ - matches one or more

\* - matches zero or more

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

{4} matches exactly 4 characters, whereas {4,5} matches between 4 and 5 characters.

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

\d – matches single digit

\w – matches single word

\s – matches space

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

\D – matches not a digit

\W – matches not a word

\S – matches not a space character

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

Both are same ‘.\*?’ returns the smallest match possible (Non-greedy behaviour)

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

[a-z0-9] matches both numbers and lowercase letters

1. **What is the procedure for making a normal expression in regex case insensitive?**

re.I or re.IGNORECASE makes the case insensitive.

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

The ‘.’ character matches all characters except newline. If re.DOTALL is passed as 2nd argument in re.compile() then it also matches newline characters.

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

'X drummers, X pipers, five rings, X hen'

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

Allows to add whitespace and comments to the string passed.

1. **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})\*$’)

1. **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]\*\sWatanabe’)

1. **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)\s(apples|cats|baseballs)\.',re.IGNORECASE)