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

Ans: The feature responsible for generation of Regex objects is re.compile().

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

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

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

Ans:The reeturn value of the search() method is a match is it is found in string otherwise it returns none.

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

Ans: We can use the group() method ,this method return strings of the matched text.

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?

Ans:In the regex Group 0 is the entire match, group 1 covers the first set of parentheses, and group 2 covers the second set of parentheses.

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?

Ans:We can use backlash to escaape periods and parentheses: \.,\(, and\).

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

Ans:If the regex has groups then a list of tuples of strings is returned as output and if the regex has no groups, a list of strings is returned.

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

Ans: The | character is used for matching “either, or” between two groups.

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

Ans: In regular expressions, ? character represents zero or one match of preceding group.

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

Ans: In regular expressions, The \* character matches zero or more whereas, the + character matches one or more.

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

Ans: Here {4} means that preceding group should repeat 4 times. Where as {4,5} means that the preceding group should repeat minimum 4 times and maximum 5 times.

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

Ans: The \d,\wand \s shorthand character classes match a single digit, word, or space character, respectively.

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

Ans: The \D,\W and \S character classes match a non-digit character, a non- alphanumeric character and non- whitespace character.

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

Ans:

.\* returns the longest string that meets the condition while, .\*? returns the shortest string that meets the condition.

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

Ans:

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

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

Ans:We can make a normal expression in regex case insensitive by using re.IGNORECASE as a flag.

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

Ans: Except newline character(.) the dot (.) character matches everything in input.We can make dot character match everything including newline character by passing re.DOTALL as 2nd argument in re.compile().

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

Ans:

Output: ‘X drummers,X pipers, five rings, X hen’

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

Ans: re.VERBOSE will allow us to add whitespace and comments to 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)

Ans: 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)

Ans: 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.'

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