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

Solution1: The re.compile() function returns Regex object

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

Solution2: Raw strings are used so that backslashes do not have to be escaped. So, when working with strings that include a lot of backslashes, such as regular expressions or directory paths on Windows, raw strings are helpful.

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

Solution3: The search method returns the index (position) of the first match. The search method returns -1 if no match is found. The search method is case sensitive.

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

Solution4: When passing the string we want to search into the Regex object's search method &This returns a Match object. Call the Match object's group method to return a string of the actual matched text.

5. In the regex which created from the r&#39;(\d\d\d)-(\d\d\d-\d\d\d\d)&#39;, what does group zero cover?Group 2? Group 1?

Solution5: Group 0 is the entire match, group 1 covers the first set of parentheses, and group 2 covers the second set of parentheses

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?

Solution6: Periods and parentheses can be escaped with a backslash: \., \ (, 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?

Solution7: If the regex has no groups, a list of strings is returned. If the regex has groups, a list of tuples of strings is returned.

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

Solution8: The | character signifies matching “either, or” between two groups.

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

Solution9: Regular expressions are combinations of special character operators, which are symbols that control the search, that you can use to construct search strings for advanced find and/or replace searches.

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

Solution10: Each of them are quantifiers, the star quantifier (\* ) means that the preceding expression can match zero or more times it is like {0,} while the plus quantifier( + ) indicate that the preceding expression MUST match at least one time or multiple times and it is the same as {1,} .

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

Solution11:

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

expressions?

Solution12: \d-A digit: [0-9]

\w-A word character: [a-zA-Z\_0-9]

\s-A whitespace character: [ \t\n\x0B\f\r]

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

Solution13: \D-A non-digit: [^0-9]

\W-A non-word character: [^\w]

\S- A non-whitespace character: [^\s]

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

Solution14: The .\* performs a greedy match, and the .\*? performs a nongreedy match.

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

Solution15: Either [0-9a-z] or [a-z0-9]

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

Solution16: re.IGNORECASE

17. What does the . character normally match? What does it match if re.DOTALL is passed as 2nd

argument in re.compile()?

Solution17: . character normally matches any character except the newline character.

re.DOTALL is passed as 2nd argument in re.compile() then then the dot will also match newline characters.

18. If numReg = re.compile(r&#39;\d+&#39;), what will numRegex.sub(&#39;X&#39;, &#39;11 drummers, 10 pipers, five rings, 4

hen&#39;) return?

Solution18: 'X drummers, X pipers, five rings, X hens'

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

Solution19: The re.VERBOSE argument allows you 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)

Solution20: e.compile(r'^\d{1,3}(,{3})\*$') will create this regex, but other regex strings can produce a similar regular expression.

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)

Solution21: re.compile(r'[A-Z][a-z]\*\sWatanabe')

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.'

Solution22: re.compile(r'(Alice|Bob|Carol)\s(eats|pets|throws)\ s(apples|cats|baseballs)\.', re.IGNORECASE)