1. **What is the name of the feature responsible for generating Regex objects?**  
     
   compile() function from the regex module creates a Regex object
2. **Why do raw strings often appear in Regex objects?**  
   Regex often uses the back-slash character as part of the expression. This character needs to be taken as a literal instead of treating it as an escape character. Using a raw string makes it easier for the developer to design, read & understand the expression. Thus raw strings help the developer to get the "source code" of a Regex conveniently to the Regex parser.
3. **What is the return value of the search() method?**  
   The return value is a “Match object”. On this match object we can use several other methods like group(), groups() etc.
4. **From a Match item, how do you get the actual strings that match the pattern?**  
     
   on the “Match” item, we use the .group() method. We can also pass the parameter ‘0’ as .**group(0)** which gives the entire matched string.
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?**
   1. Group zero covers the entire matched string.
   2. Group 1 covers the first parenthesis set
   3. Group 2 covers the second parenthesis set  
      Graphical user interface, text, application

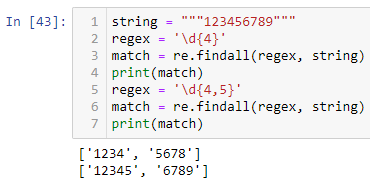
      Description automatically generated
6. **In standard expression syntax, parentheses and intervals have distinct meanings. How can you tell a regex that you want it to fit real parentheses and periods?**  
     
   Those values that have a distinct meaning in regex can also be identified as a literal by using the back-slash character before the special regex character. This way the special regex character is interpreted as literal character instead.  
   Text

   Description automatically generated
7. **The findall() method returns a string list or a list of string tuples. What causes it to return one of the two options?**
   1. When there are no groups in the regex string we get a list.
   2. When we have groups (each group in a parenthesis) in the regex string, we get a list of string tuples. The tuples provides information about which group withing the regex string resulted in a match.  
      Graphical user interface, text, application, Word

      Description automatically generated
8. **In standard expressions, what does the | character mean?**  
     
   In standard expressions the | character is a string literal.  
   Graphical user interface

   Description automatically generated with medium confidence
9. **In regular expressions, what does the character stand for?**  
     
   In regular expressions the | character represents ‘OR’  
   Graphical user interface, text, application

   Description automatically generated
10. **In regular expressions, what is the difference between the + and \* characters?**  
      
    ‘+’ means matching of repeating 1 or more characters of the preceding character.  
     ‘\*’ means matching of repeating 0 or more characters of the preceding character.  
      
    Graphical user interface, text

    Description automatically generated
11. **What is the difference between {4} and {4,5} in regular expression?**  
      
    {4} represents exactly 4 repeating characters match  
    {4,5} represents either 4 or 5 repeating characters match  
    
12. **What do you mean by the \d, \w, and \s shorthand character classes signify in regular expressions?**  
      
    \d represents a digit - 0 to 9  
    \w represents a word. A word can include letter, digit or underscore  
    \s represents a whitespace character – this includes tab, return, newline
13. **What do means by \D, \W, and \S shorthand character classes signify in regular expressions?**  
      
    \D \W \S is the negation of \d \w \s  
    \D represents a non-digit  
    \W represents a non-word  
    \S represents a non-whitespace  
    Text

    Description automatically generated with medium confidence
14. **What is the difference between .\*? and .\*?**  
      
    .\* is greedy whereas .\*? is not greedy.  
    .\* attempts to get the largest possible match  
    .\*? attempts to get the least possible match  
    Text

    Description automatically generated
15. **What is the syntax for matching both numbers and lowercase letters with a character class?**  
      
    Text

    Description automatically generated
16. **What is the procedure for making a normal expression in regex case insensitive?**  
      
    This is done by passing the parameter **flag = re.IGNORECASE** in the regex function. (re is alias for regex module)
17. **What does the . character normally match? What does it match if re.DOTALL is passed as 2nd argument in re.compile()?**  
      
    the . character matches any character excluding the newline. However this behaviour can be changed by passing the re.DOTALL as a parameter in regex functions. This is especially useful in multiline strings where you want characters on the subsequent lines to also match.  
    Text

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

    Description automatically generated with low confidence
19. What does passing re.VERBOSE as the 2nd argument to re.compile() allow to do?

The VERBOSE flag of the regex package allows the user to write regular expressions that can look nicer and are more readable. This flag does that by allowing the users to visually separate the logical sections of the pattern and add more comments.  
Text

Description automatically generated

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)

Text

Description automatically generated

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)

Text

Description automatically generated

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.'

A picture containing text

Description automatically generated