Q1. What is the benefit of regular expressions?

A Regular Expression is used for identifying a search pattern in a text string. It also helps in finding out the correctness of the data and even operations such as finding, replacing and formatting the data is possible using Regular Expressions

Q2. Describe the difference between the effects of "(ab)c+" and "a(bc)+." Which of these, if any, is the unqualified pattern "abc+"?

“a(bc)+." This pattern is unqualified for the abc+ as bc may appear one or more times as its specified in the brackets.

Q3. How much do you need to use the following sentence while using regular expressions?

import re

just once its require for import later onward we can use only package name re for calling the functions.

Q4. Which characters have special significance in square brackets when expressing a range, and under what circumstances?

[a-zA-Z0-9]: These chars have the special significance in the brackets while expressing the range.

Q5. How does compiling a regular-expression object benefit you?

We can combine a regular expression pattern into pattern objects, which can be used for pattern matching. It also helps to search a pattern again without rewriting it.

import re

pattern=re.compile('TP')

result=pattern.findall('TP Tutorialspoint TP')

print result

result2=pattern.findall('TP is most popular tutorials site of India')

print result2

### Output

['TP', 'TP']

['TP']

Q6. What are some examples of how to use the match object returned by re.match and re.search?

The match() function returns a match object if the text matches the pattern. Otherwise, it returns None.

We can use the match function as below:

if re.match(pattern, sequence):

print("Match!")

else: print("Not a match!")

With the [search function](https://www.datacamp.com/community/tutorials/python-regular-expression-tutorial?utm_source=adwords_ppc&utm_medium=cpc&utm_campaignid=1455363063&utm_adgroupid=65083631748&utm_device=c&utm_keyword=&utm_matchtype=&utm_network=g&utm_adpostion=&utm_creative=332602034361&utm_targetid=aud-299261629574:dsa-473406579035&utm_loc_interest_ms=&utm_loc_physical_ms=9040233&gclid=EAIaIQobChMI552W8L7R9AIVja-WCh3__g6iEAAYASAAEgITS_D_BwE#search), you scan through the given string/sequence, looking for the first location where the regular expression produces a match.

re.search(r'[0-6]', 'Number: 5')

Q7. What is the difference between using a vertical bar (|) as an alteration and using square brackets as a character set?

With the | we can use the multiple statement of re by adding | in between.

With the [] we can specify the range as well as we can add the OR functionality in it without defining the | in between.

Q8. In regular-expression search patterns, why is it necessary to use the raw-string indicator (r)? In   replacement strings?

We use the r raw string to define the special chars as is like escape chars so if it’s a \n in string then it will not print the new line instead it will keep the \n and print from the given pattern.