1. What is the name of the feature responsible for generating Regex objects?  
Ans: re.compile() is used to generate Regex object.

2. Why do raw strings often appear in Regex objects?  
Ans: To avoid the escaping of backslashes in the string.

3. What is the return value of the search() method?  
Ans: It return an object.

4. From a Match item, how do you get the actual strings that match the pattern?  
Ans: The group() method return the matching strings.

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?  
Ans: Group zero return the entire matched string (i.e. combined matches of first parentheses and second parentheses). Group 1 returns the match of first parentheses. Group 2 returns the match of second 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?  
Ans: Backslash can be used to escape parentheses, period, or any other characters which has a special meaning in regex pattern, and this is the way to treat them a matching characters in the regex pattern.

7. The findall() method returns a string list or a list of string tuples. What causes it to return one of the two options?  
Ans: findall() method a string list if pattern doesn’t have group matches, else it returns a list of string tuples.

8. In standard expressions, what does the | character mean?  
Ans: It means match either one (i.e or condition )

9. In regular expressions, what does the character stand for?  
Ans: It’s wrong question, since character is not provided.

10.In regular expressions, what is the difference between the + and \* characters?  
Ans: + means one or more occurrences, whereas \* refers to zero or more occurrences.

11. What is the difference between {4} and {4,5} in regular expression?  
Ans: {4} matches the exact four occurrences of the preceding character or group. However, {4,5} means the preceding character or group should match at least four times and maximum five times.

12. What do you mean by the \d, \w, and \s shorthand character classes signify in regular expressions?  
Ans: \d, \w, and \s are used to match a single character that is a digit, word, or space character.

13. What do means by \D, \W, and \S shorthand character classes signify in regular expressions?  
Ans: \D, \W, and \S are used to match a single character that is not a digit, word, or space character.

14. What is the difference between .\*? and .\*?  
Ans: .\*? is called non-greedy matching whereas .\* is greedy matching.

15. What is the syntax for matching both numbers and lowercase letters with a character class?  
Ans: [0-9a-z]

16. What is the procedure for making a normal expression in regax case insensitive?  
Ans: re.IGNORECASE or i can be used in regular expression can be used for case insensitive matching.

17. What does the . character normally match? What does it match if re.DOTALL is passed as 2nd argument in re.compile()?  
Ans: The . character is used to match any character except the new line. However, with re.DOTALL argument, it matches any character including new line.

18. If numReg = re.compile(r'\d+'), what will numRegex.sub('X', '11 drummers, 10 pipers, five rings, 4 hen') return?  
Ans: It will give error - “NameError: name 'numRegex' is not defined”

19. What does passing re.VERBOSE as the 2nd argument to re.compile() allow to do?  
Ans: re.VERBOSE allows us to pass whitespaces and comments in between the patterns which we pass to re.compile() method.

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: "(^\d+(,\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: "^[A-Z]{1}[A-Za-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.'

Ans:  
ptrn = "^(Alice|Bob|Carol)\s(eats|pets|throws)\s(apples|cats|baseballs)\.$"  
regex = re.compile(ptrn, re.IGNORECASE)