

1. What is the primary purpose of regular expressions in NLP?

- a) To store data
- b) To perform mathematical calculations
- c) To match and manipulate text patterns
- d) To execute programs

**Answer:** c) To match and manipulate text patterns

2. Which Python library is commonly used for working with regular expressions?

- a) `re`
- b) `regex`
- c) `pandas`
- d) `nltk`

**Answer:** a) `re`

3. What function is used to search for a pattern in a string in Python?

- a) `re.find()`
- b) `re.match()`
- c) `re.search()`
- d) `re.lookfor()`

**Answer:** c) `re.search()`

4. Which function returns all occurrences of a pattern in a string?

- a) `re.match()`
- b) `re.findall()`
- c) `re.find()`
- d) `re.get()`

**Answer:** b) `re.findall()`

5. What does the `re.sub()` function do?

- a) Splits a string
- b) Searches for a pattern
- c) Replaces occurrences of a pattern
- d) Counts occurrences of a pattern

**Answer:** c) Replaces occurrences of a pattern

6. In regex, how do you match a space character?

- a) `\s`
- b) `\w`
- c) `\d`
- d) `\S`

**Answer:** a) `\s`

7. What does `\S` match in regex?

- a) A space character
- b) A non-space character
- c) A digit
- d) A word

**Answer:** b) A non-space character

8. Which of the following matches a tab space?

- a) \s
- b) \t
- c) \w
- d) \d

**Answer:** b) \t

9. What is the purpose of ^ in regex?

- a) To match the start of a string
- b) To match the end of a string
- c) To match any character
- d) To match spaces

**Answer:** a) To match the start of a string

10. Which regex pattern will match a string that starts with "Hello"?

- a) Hello^
- b) ^Hello
- c) Hello\$
- d) \$Hello

**Answer:** b) ^Hello

11. What does the ? symbol mean in regex?

- a) Match one or more times
- b) Match zero or one time
- c) Match exactly one time
- d) Match zero or more times

**Answer:** b) Match zero or one time

12. What will the pattern `colou?r` match?

- a) `color` only
- b) `colour` only
- c) Both `color` and `colour`
- d) Neither

**Answer:** c) Both `color` and `colour`

13. What does the \* symbol represent in regex?

- a) Match exactly one time
- b) Match zero or more times
- c) Match one or more times
- d) Match at least once

**Answer:** b) Match zero or more times

14. What will the regex `ab*` match?

- a) Only `ab`
- b) `a`, `ab`, `abb`, `abbb`, etc.
- c) Only `b`
- d) None

**Answer:** b) `a`, `ab`, `abb`, `abbb`, etc.

15. What does the . (dot) symbol match in regex?

- a) Any digit
- b) Any whitespace character
- c) Any single character except newline
- d) Only letters

**Answer:** c) Any single character except newline

16. Which regex will match "cat", "bat", and "rat"?

- a) c.b
- b) .at
- c) rat|bat|cat
- d) r\*t

**Answer:** b) .at

17. What does the \$ symbol do in regex?

- a) Matches the start of a string
- b) Matches the end of a string
- c) Matches any number of spaces
- d) Matches any number of digits

**Answer:** b) Matches the end of a string

18. What does the pattern word\$ match?

- a) A string starting with "word"
- b) A string ending with "word"
- c) Any occurrence of "word"
- d) None

**Answer:** b) A string ending with "word"

19. What does the | symbol represent in regex?

- a) Logical OR
- b) Logical AND
- c) Match the start of a string
- d) Match any single character

**Answer:** a) Logical OR

20. Which regex pattern will match either "cat" or "dog"?

- a) cat|dog
- b) cat dog
- c) cat-dog
- d) cat&dog

**Answer:** a) cat|dog

21. What are parentheses () used for in regex?

- a) To define groups
- b) To escape special characters
- c) To represent spaces
- d) To define ranges

**Answer:** a) To define groups

22. What does the regex `(ha)+` match?

- a) ha, haha, hahaha, etc.
- b) Only ha
- c) Only haha
- d) None

**Answer:** a) ha, haha, hahaha, etc.

23. Which operator has the highest precedence in regex?

- a) `*`
- b) `|`
- c) `.`
- d) `()`

**Answer:** d) `()`

24. What is the order of precedence in regex?

- a) `()`, `*`, `|`
- b) `|`, `()`, `*`
- c) `*`, `()`, `|`
- d) `|`, `*`, `()`

**Answer:** a) `()`, `*`, `|`

25. What does the `+` symbol mean in regex?

- a) Match zero or more times
- b) Match one or more times
- c) Match exactly one time
- d) Match at most one time

**Answer:** b) Match one or more times

26. What will the regex `ba+` match?

- a) Only b
- b) b, ba, baa, baaa, etc.
- c) Only ba
- d) None

**Answer:** b) b, ba, baa, baaa, etc.

27. What does `{n}` specify in a regex pattern?

- a) Matches exactly `n` times
- b) Matches at least `n` times
- c) Matches up to `n` times
- d) Matches any number of times

**Answer:** a) Matches exactly `n` times

28. What will the regex `a{2,4}` match?

- a) Exactly two as

- b) Between two and four `a`s
- c) At least four `a`s
- d) Only one `a`

**Answer:** b) Between two and four `a`s

29. Which regex will match any digit?

- a) `\w`
- b) `\d`
- c) `\s`
- d) `\D`

**Answer:** b) `\d`

30. Which regex matches a non-digit character?

- a) `\D`
- b) `\w`
- c) `\d`
- d) `\s`

**Answer:** a) `\D`

31. What does `\w` match in regex?

- a) Any word character (letters, digits, underscore)
- b) Any whitespace character
- c) Only lowercase letters
- d) Any symbol

**Answer:** a) Any word character (letters, digits, underscore)

32. Which regex matches a non-word character?

- a) `\D`
- b) `\W`
- c) `\s`
- d) `\w`

**Answer:** b) `\W`

33. What is the function of `re.split()`?

- a) To replace a pattern in a string
- b) To find all occurrences of a pattern
- c) To split a string using a regex pattern
- d) To match the start of a string

**Answer:** c) To split a string using a regex pattern

34. What does `re.compile()` do?
- a) Matches a pattern in a string
  - b) Compiles a regex pattern for reuse
  - c) Removes whitespace from a string
  - d) Extracts numbers from a string

**Answer:** b) Compiles a regex pattern for reuse

35. Which regex pattern will match either "apple" or "banana"?
- a) `apple banana`
  - b) `apple|banana`
  - c) `(apple banana)`
  - d) `apple&banana`

**Answer:** b) `apple|banana`

36. Which regex pattern will match any single uppercase letter?
- a) `[a-z]`
  - b) `[A-Z]`
  - c) `[A-Z0-9]`
  - d) `[a-zA-Z]`

**Answer:** b) `[A-Z]`

37. What does `[0-9]` match?
- a) Any lowercase letter
  - b) Any digit from 0 to 9
  - c) Any uppercase letter
  - d) Any whitespace character

**Answer:** b) Any digit from 0 to 9

38. Which regex pattern will match only vowels (a, e, i, o, u)?
- a) `[aeiou]`
  - b) `[AEIOU]`
  - c) `[aeiouAEIOU]`
  - d) All of the above

**Answer:** d) All of the above

39. What does `[^0-9]` match?
- a) Any digit
  - b) Any character except digits
  - c) Only numbers
  - d) Only spaces

**Answer:** b) Any character except digits

40. What will `[^aeiou]` match?

- a) Only vowels
- b) Only consonants
- c) Only numbers
- d) Only spaces

**Answer:** b) Only consonants

41. Which regex matches a string containing "abc" anywhere?

- a) `^abc$`
- b) `abc`
- c) `[abc]`
- d) `abc*`

**Answer:** b) `abc`

42. Which regex pattern ensures the entire string is numeric?

- a) `^\d+$`
- b) `\d+`
- c) `\w+`
- d) `^\w+$`

**Answer:** a) `^\d+$`

43. What does `\b` represent in regex?

- a) A word boundary
- b) A whitespace character
- c) A non-digit character
- d) A lowercase letter

**Answer:** a) A word boundary

44. Which regex matches a word that starts with "cat"?

- a) `\bcat`
- b) `cat\b`
- c) `^cat`
- d) `cat$`

**Answer:** a) `\bcat`

45. Which regex pattern will match "cat" only if it's a whole word?

- a) `\bcat\b`
- b) `^cat$`

- c) `cat|dog`
- d) `cat*`

**Answer:** a) `\bcat\b`

46. What does `re.match()` do?
- a) Matches a pattern at any position in a string
  - b) Matches a pattern only at the beginning of a string
  - c) Finds all occurrences of a pattern
  - d) Splits a string

**Answer:** b) Matches a pattern only at the beginning of a string

47. What is the main difference between `re.match()` and `re.search()`?
- a) `re.match()` searches the entire string, while `re.search()` checks only the beginning
  - b) `re.match()` checks only the beginning, while `re.search()` searches the entire string
  - c) `re.match()` returns a list, while `re.search()` returns a boolean
  - d) Both do the same thing

**Answer:** b) `re.match()` checks only the beginning, while `re.search()` searches the entire string

48. What does `re.escape()` do?
- a) Escapes all special characters in a string
  - b) Removes spaces from a string
  - c) Converts lowercase to uppercase
  - d) Finds patterns in a string

**Answer:** a) Escapes all special characters in a string

49. What does `\Z` match in regex?
- a) The end of a string
  - b) The beginning of a string
  - c) A whitespace character
  - d) A word character

**Answer:** a) The end of a string

50. What will the regex `^\s+|\s+$` do?
- a) Match only spaces
  - b) Remove leading and trailing whitespace
  - c) Match only digits
  - d) Match only letters

**Answer:** b) Remove leading and trailing whitespace



