

Q1 [Interview] What is a regular expression in JS?

Ans: A pattern used to match character combinations.

Q2 [Interview] How to create regex in JS?

Ans: Using literals or RegExp constructor.

```
let re = /abc/; let re2 = new RegExp('abc');
```

Q3 [Interview] What does .test() do?

Ans: Returns true if regex matches string.

```
/abc/.test('abc') // true
```

Q4 [Interview] What is .match() used for?

Ans: Returns matches in a string.

```
'abc123'.match(/\d+/) // ['123']
```

Q5 [Interview] How to validate an email?

Ans: Use regex pattern for email structure.

Q6 [Interview] What is \d in regex?

Ans: Matches any digit.

Q7 [Interview] What does ^ and \$ mean?

Ans: Start and end of line respectively.

Q8 [Interview] What is form validation?

Ans: Checking if input meets criteria before submission.

Q9 [Interview] How to prevent default form submission?

Ans: Use e.preventDefault().

Q10 [Interview] How to get input value in JS?

Ans: input.value

Q11 [Interview] What are HTML5 validation attributes?

Ans: required, type, pattern, minlength, etc.

Q12 [Interview] How to check if field is empty?

Ans: Compare input.value with "".

Q13 [Interview] Can regex validate password strength?

Ans: Yes, based on length, digits, symbols.

Q14 [Interview] What is .replace() with regex?

Ans: Replace matched text.

Q15 [Interview] How to validate phone number format?

Ans: Use regex like /^d{10}\$/

Q16 [DSA] Check if string contains only letters.

Ans: Use /^[a-zA-Z]+\$/.test(str)

Q17 [DSA] Validate that name starts with capital letter.

Ans: Use `/^[A-Z][a-z]+$`

Q18 [DSA] Validate Indian phone number.

Ans: Use `/^\d{10}$`

Q19 [DSA] Check for special characters.

Ans: Use `/[^a-zA-Z0-9]`

Q20 [DSA] Validate postal code (6 digits).

Ans: `/^\d{6}$`

Q21 [DSA] Password must have digit, uppercase, lowercase.

Ans: Use `/((?=.*\d)(?=.*[a-z])(?=.*[A-Z])`

Q22 [DSA] Allow only alphabets in input field.

Ans:

Q23 [DSA] Restrict input to numbers in real-time.

Ans: Attach input listener and test value.

Q24 [DSA] Check if URL is valid.

Ans: Use `/^https?:\W/`

Q25 [DSA] Form should not submit if any field is empty.

Ans:

Q26 [DSA] Check email ends with '.com'.

Ans: Use `^.com$`

Q27 [DSA] Validate username (alphanumeric, 5-12 chars).

Ans: `/^[a-zA-Z0-9]{5,12}$`

Q28 [DSA] Check if password has at least 1 symbol.

Ans:

Q29 [DSA] Reject input with space character.

Ans:

Q30 [DSA] Detect multiple spaces in a string.

Ans:

Q31 [LeetCode] 'abc123'.match(/d+/)

Ans: `['123']`

Q32 [LeetCode] `/^\d+$/.test('123a')`

Ans: `false`

Q33 [LeetCode] `/[A-Z]/.test('hello')`

Ans: `false`

Q34 [LeetCode] `/s/.test(' ') // whitespace`

Ans: true

Q35 [LeetCode] `typeof /abc/`

Ans: 'object'

Q36 [LeetCode] Replace digits with X

Ans: 'ab12cd'.replace(/d/g, 'X') // abXXcd

Q37 [LeetCode] `/[a-z]{3}/.test('ab')`

Ans: false

Q38 [LeetCode] `/d{3}/.test('4567')`

Ans: true

Q39 [LeetCode] Escape special characters?

Ans: Use double \, eg. \.

Q40 [LeetCode] Check valid 24hr time hh:mm

Ans: `/^([01]\d|2[0-3]):[0-5]\d$/`

Q41 [Conceptual] Can regex validate real-time input?

Ans: Yes, via input or keyup events.

Q42 [Conceptual] What happens if test fails?

Ans: .test returns false.

Q43 [Conceptual] What is global flag in regex?

Ans: Makes regex test all matches.

Q44 [Conceptual] What is i flag in regex?

Ans: Case insensitive match.

Q45 [Conceptual] What are capture groups?

Ans: Portions of regex that can be reused.

Q46 [Conceptual] How to test input live?

Ans: Use `addEventListener('input')`.

Q47 [Conceptual] Does `.match()` return array?

Ans: Yes.

Q48 [Conceptual] Can you use regex in HTML pattern?

Ans: Yes, `<input pattern='... '>`

Q49 [Conceptual] Are regex case sensitive?

Ans: By default yes.

Q50 [Conceptual] Difference between `.test()` and `.exec()`?

Ans: .test returns true/false, .exec returns match info.