DWA_02.8 Knowledge Check_DWA2

_____

1. What do ES5, ES6 and ES2015 mean - and what are the differences between them?

These refer to versions/editions of the ECMAScript standard released by ECMA International. ES5 refers to the 5th edition, whilst both ES6 and ES2015 refer to the 6th edition (as ECMA International decided to include the release year in the version names).

_____

2. What are JScript, ActionScript and ECMAScript - and how do they relate to JavaScript?

- JScript is Microsoft's reverse-engineered version of JavaScript.
- ActionScript was a programming language based on an early draft for ECMAScript 4 (which in turn is based on JavaScript)
- ECMAScript is the language which the ECMA-262 standard refers to and is based on (with the standard itself being based on JavaScript, but was renamed for trademark purposes.)

_____

3. What is an example of a JavaScript specification - and where can you find it?

An example taken from the latest version of ECMA-262 (https://tc39.es/ecma262/) explaining the steps of how the abstract operation "ToBoolean" should work:

7.1.2 ToBoolean (*argument*)

The abstract operation ToBoolean takes argument *argument* (an ECMAScript language value) and returns a Boolean. It converts *argument* to a value of type Boolean. It performs the following steps when called:

1. If *argument* is a Boolean, return *argument*.
2. If *argument* is one of **undefined**, **null**, $+0_{\mathbb{F}}$, $-0_{\mathbb{F}}$, **NaN**, $0_{\mathbb{Z}}$, or the empty String, return **false**.
3. NOTE: This step is replaced in section B.3.6.1.
4. Return **true**.

_____

4. What are v8, SpiderMonkey, Chakra and Tamarin? Do they run JavaScript differently?

These are the different JavaScript engines (or interpreters) found in web browsers which interprets and executes JavaScript code. Each engine is developed by different companies, and as such they each vary in how well they interpret JS, with some being less up-to-date with the latest ECMAScript specifications than others.

_____

5. Show a practical example using **caniuse.com** and the MDN compatibility table.

Using caniuse.com, I can see that ECMAScript 2015 (ES6) is NOT compatible with:

- Chrome v4-20
- Safari v3.1-7
- Firefox v2-5
- Opera v10-12.1
- Safari on iOS v3.2-6.1
- Opera Mini all versions
- Opera Mobile v12-12.1
- Android Browser v2.1-4.3
- IE v6-10

Using MDN web docs, I can see that the function property "displayName" is not compatible with any of the latest browsers except Firefox

(https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Function/displayName#browser_compatibility)

_____