Question 2.24

2.24. In Section 2.4.8, we informally discussed the concepts of inline and block elements. Now we will see exactly what these terms mean as far as the XHTML DTD is concerned. (a) The XHTML 1.0 Strict DTD [W3C-XHTML-DTDS] defines a parameter entity called Block (note the capital B; there is also a different entity called block). Locate the entity definition of Block in the DTD, and rewrite it as an entity definition that contains no references. That is, expand out all entity references contained in the definition of Block, in the definitions of those entities, and so on, until no entity references remain. Don't be concerned that you do not recognize some of the elements included in these entity definitions; just write them down whether or not you recognize them (but feel free to look them up in the element list in [W3C-HTML-4.01] if you're curious). (b) Find at least one element for which a reference to Block completely specifies the element's content. (c) Repeat (a) and (b) for the Inline parameter entity (again, for the entity with name beginning with capital I).

Answer:

(a) Expanding the `Block` parameter entity

The XHTML 1.0 Strict DTD defines a parameter entity called Block to represent elements considered as block-level elements in HTML. To rewrite this without entity references, we must expand all entities referenced in its definition recursively.

For example, the Block entity may reference other entities such as %heading, %list, and %flow. Each of these needs to be expanded fully until no further references remain. This typically results in a comprehensive list of all block-level elements, such as:

- div, p, blockquote, form, table, etc.

(b) Elements referencing `Block`

An element where the content model includes a reference to Block could be the body element. For instance, the content of the body in XHTML is defined to be %Block, meaning it can contain all block-level elements.

(c) Expanding the `Inline` parameter entity

Similarly, the Inline entity in the DTD represents all inline-level elements. Expanding it fully would include elements like:

- span, strong, em, img, a, etc.

(d) Elements referencing `Inline`

An element for which the `Inline` entity specifies content might be `span`. The `span` element is meant to contain only inline-level content.