



SDMX self-learning package  
XML based technologies used in SDMX-IT

**TEST**

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## 1 Self-test: XML based technologies used in SDMX-IT

1) Which propositions are incorrect?

The XML language:

- a) is used to describe the content and structure of data in a document.
  - b) is an open standard.
  - c) is expressed in text.
  - d) is not designed for use directly by people.
  - e) uses tags to describe content.
  - f) allows only XML documents to be treated as linear 'trees'.
  - g) provides the facility of defining new tags.
  - h) allows the creation of a 'structured' type of document.
  - i) is extensible.
  - j) is a mark-up language published by the W3C.
  - k) none of the above.
- 2) Why does XML uses namespaces (xmlns)?
- a) To ensure, modularity and extensibility.
  - b) To create uniquely named elements and attributes.
  - c) To avoid element name conflicts inside the XML file.
  - d) All of the above.
- 3) The URI in an XML document is associated to a prefix, why?
- a) That prefix is used with each element.
  - b) To indicate which namespace the element belongs to.
  - c) All of the above.
- 4) How are namespaces declared?
- a) By using a family of reserved XML attributes inside the root element of the XML document.
  - b) By using attribute names that must either be xmlns or contain xmlns: as a prefix.
  - c) All of the above.
- 5) What is an XML schema?
- a) It defines the permitted building blocks of an XML document, itself written in XML,
  - b) It answers questions such as 'How is the data organized?' or 'What are the different types of data (numbers, text, codes, etc.)?'
  - c) All of the above.
- 6) What is not a characteristic of an XSD Schema?
- a) It is an XML document.
  - b) It supports Inheritance.
  - c) New data types can be defined from a data type that is already defined inside the XSD Schema.
  - d) Specifies data types for both elements and attributes.
  - e) Includes the style of the XML documents.

- 7) XML schemas can be hierarchical, so that a schema can re-use another schema.
- True.
  - False.
- 8) Why is the SDMX standard based on XML?
- XML is a natural tool for describing statistical data which are highly structured.
  - To make computer applications easy for processing.
  - To allow the use of 'Web Services' technologies.
  - All of the major tools used by software developers provide support for XML.
  - The major database platforms support XML.
  - All of the above.
- 9) Why is XML useful to represent SDMX objects?
- The hierarchical nature of XML documents allows the representation of structural metadata.
  - XML has object-oriented features that allow the relationships in the Information Model to be represented in the XML structures.
  - The core functions of SDMX that are based on the structural metadata are much simpler to implement with XML.
  - All of the above.
  - None of the above.
- 10) Which common building rules do the SDMX-ML document types share at the message level? (Several answers possible)
- SDMXMessage.xsd.
  - SDMXUtilityData.xsd.
  - SDMXCommon.xsd.
  - SDMXGenericData.xsd.
  - All of the above.
- 11) Why have standard mappings (XSLT Files) and corresponding transformation tools been developed? (several answers possible)
- To create Data Structure Definition schemas.
  - To transform XML data files from an XML data description format to another format.
  - To validate SDMX Data Files.
  - All of the above.
- 12) No single schema applies to all SDMX Messages.
- True.
  - False.
- 13) In the header of the Compact Schema derived from the DSD, one can find (several answers possible):
- xmlns=[http://www.SDMX.org/resources/SDMXML/schemas/v2\\_0/compact](http://www.SDMX.org/resources/SDMXML/schemas/v2_0/compact).
  - targetNamespace=[http://www.SDMX.org/resources/SDMXML/schemas/v2\\_0/metadatarreport](http://www.SDMX.org/resources/SDMXML/schemas/v2_0/metadatarreport).
  - xmlns:compact.
  - All of the above.

- 14) Which element is not part of the four different namespaces declared in the compactData element of an SDMX data file in Compact format?
- xmlns.
  - xmlns:compact.
  - xmlns:xsi.
  - xmlns:common.
  - xmlns:estat\_sts.
- 15) XSLT is a language influenced by functional languages and by text-based pattern-matching languages.
- True.
  - False.
- 16) The XML Copy Editor application can be used for which purposes?
- To transform an XML element using XSLT files.
  - To visualize XML structures in hierarchical view.
  - To validate an XML element against a provided Schema.
  - All of the above.
- 17) Web services is an internet technology that enables computer applications to exchange data directly over the Internet.
- True.
  - False.
- 18) Web services requires many standards to function, why?
- To request and supply data.
  - To describe web services to one another.
  - To express the enveloping data which is used to package exchanged data.
  - All of the above.
- 19) SDMX provides web-service standards concerning statistical data and metadata, which ones?
- SOAP and the Web Services Description Language (WSDL).
  - Representational State Transfer or REST.
  - All of the above.
- 20) What is the purpose of a WSDL document?
- It defines services as collections of network endpoints, or ports.
  - It defines a common binding mechanism, to be used to attach a specific protocol or data format or structure to an abstract message, operation, or endpoint.
  - All of the above.

## 2 **Answers**

Question 1: f).

Question 2: d).

Question 3: c).

Question 4: c).

Question 5: c).

Question 6: e).

Question 7: a).

Question 8: f).

Question 9: d).

Question 10: a) & c).

Question 11: a) & b).

Question 12: a).

Question 13: a) & c).

Question 14: d).

Question 15: a).

Question 16: d).

Question 17: a).

Question 18: d).

Question 19: c).

Question 20: c).