Question 5

a) instruct = top.getDocumentElement().getElementsByTagName("instruction").
    item(0).getFirstChild().getData();

    -1/2 mark for each missing function, -1/2 for wrong order
    Note: there could be other correct solutions!

b) section/question[@number=6]

    1 mark for section/question
    1 mark for correct attribute condition

c)   <complexType name="questionType">
         <sequence>
           <element name="instruction" minOccurs="0" maxOccurs="unbounded"
    type="string"/>
           <element name="subquestion" maxOccurs="unbounded" type="string"/>
         </sequence>
         <attribute name="number" type="string" use="required"/>
       </complexType>

    1 mark for correct complexType/sequence definition
    1 mark for correct elements and types for each
    1 mark for minOccurs='0' on instruction
    1 mark for maxOccurs='unbounded' on both elements
    2 marks for attribute definition and placement

Question 6

a) none! 1

b) It allows user-defined types e.g., complexTypes   1
    It allows more constrained types e.g., date types   1
    It allows more accurate occurrence definitions e.g., 2-3 instances   1
    (Note: the e.g. bits are not required)

c) A number of database operations will be required to de/re-construct XML documents
    since data is stored in one data and links are stored in another and both these pieces of
    information are needed and they cannot be extracted using simple predefined and
    standardised sequences of SQL statements.   2