**Q8.** These are two different assertions that would make the ontology inconsistent:

* adding an object property assertion of *MedievalManuscript1* named *‘is collected in’* and assigning *PublicLibrary1* as individual name. This cause inconsistency because the same manuscript can’t be collected in two different libraries;
* adding another title to *RenaissanceManuscript1* as data property assertion because the same manuscript can’t have two different titles.

**Q9.** The complex role inclusion axioms definition is:*publishes o includes o ‘is collected in’ SubPropertyOf: ‘has a publication agreement with’*.

**Q10.** The ontology satisfies the global restrictions both with and without the complex role inclusion axiom.

**Q11.**

1. PREFIX : <http://www.semanticweb.org/Written-exam-2023-01#>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT ?manuscript ?library

WHERE {

?manuscript a :Manuscript ;

:hasDateOfCreation ?date ;

:isCollectedIn ?library .

FILTER (?date > "1230-01-01T00:00:00"^^xsd:dateTime && ?date < "1350-01-01T00:00:00"^^xsd:dateTime)

}

1. PREFIX : <http://www.semanticweb.org/Written-exam-2023-01#>

SELECT ?title

WHERE {

?book a :Book ;

:hasBookTitle ?title .

} ORDER BY ?title

LIMIT 2

OFFSET 2

1. PREFIX : <http://www.semanticweb.org/Written-exam-2023-01#>

SELECT ?manuscript ?title ?bookTitle ?bookISBN ?bookPublisher

WHERE {

?manuscript a :Manuscript ;

:isIncludedIn ?book ;

:hasTitle ?title .

?book a :Book ;

:hasBookTitle ?bookTitle ;

:hasISBN ?bookISBN ;

:isPublishedBy ?bookPublisher .

}