Overall Statistics

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>57</td>
</tr>
<tr>
<td>Max</td>
<td>76</td>
</tr>
<tr>
<td>Min</td>
<td>31</td>
</tr>
<tr>
<td>Mode</td>
<td>68</td>
</tr>
<tr>
<td>Median</td>
<td>62</td>
</tr>
<tr>
<td>StDev</td>
<td>13</td>
</tr>
</tbody>
</table>

While the average is a bit low, the median is a merit. By far the dominant grade was > 60. The mode (68) had 7 instances. The next most common grade (62) occurred 5 times.

The following chart gives the Average, Max, and Min for each question.

In all cases, at least one person achieved the maximum. Q3 was answered correctly by everyone. Q6 was awarded to everyone because of a confusion during the exam. If you follow the blue lines, you’ll see that the questions were reasonably balanced for difficulty with some fairly difficult ones (Q15, Q16, Q18, and Q19).
Essay feedback

Q6. There were issues noted with Q6 and whether the correct answer was present, resulting in the students being told to ignore the question. The confusion was primarily due to the arrow heads on the diagrams being too small. We will take this into account when drafting future papers.

Q.25 OntoClean Question concerning hierarchies:

Answers to this question were reasonable overall. Some answers failed to appeal to OntoClean as asked though. A number of answers also failed to supply a solution.

Q.26 OntoClean/consistency:

A number of good answers, but many didn't pick up the fact that OntoClean is not about contraining models, but is about ontological commitment.

Q.27 Partonomy

Several answers tried to use SEP triples to answer this, while others discussed the use of direct parts. Neither of these are solutions to this issue -- it is rather about identifying different kinds of part-whole relationship.

Answers also failed to supply *solutions* as requested.

Q28. Partonomy

This question was answered poorly. Very few responses mentioned SEP triples which would be a mechanism to tackle this. The question explicitly states that the language does not support transitivity, so declaring transitive roles is not an option! As with other questions, although the question asked for solutions, in many cases a solution was not sketched out.

Q29:

For *expressions* that were broken but used consistently, I generally only penalized the first appearances. Thus:

Witch EquivalentTo: (burns some Female)
Wood SubClassOf: (burns some Thing)

Witches are the things which are flammable: They don't set other things on fire (in this passage). This should be really clear with wood! But This would net 1.5 points instead of only 1 point.

This was only the case when an error was a "block" that was used consistently.

E.g.,

Class: Witch burns Female
Class: Wood burns Thing

Aren't axioms and aren't a mere syntax error: We need to know if it's a subsumption or equivalence. This would get 0.
By and large, the obvious "transliteration" of this passage is propositional. E.g., Burns is a class as is Wood, Female, and Witch. Thus one would expect:

   Class: Witch EquivalentTo: Female that Burns.

   //Alternatively, Female and Burns.

Trying to model properties like Burns as "characteristics" or "features" is not necessarily wrong modelling, but it's not very good transliteration (i.e., it introduces a lot of stuff not apparent in the original text). I didn't take off for this.

Many axioms should be pretty strong. E.g., the Witch sentence is pretty clearly a definition. This generally didn't result in a penalty unless it radically changed the meaning.

"Sally is a witch" is a sentence that needs transliteration! Given the right representation of the rest, it does follow...but we can assert things which are entailed by another part of an ontology.

30.

Overall people did very well on this question.

It's important to discuss *each* vertex and the positive *and* negative relations in each direction. So, increased expressivity can increase usability (by making it possible to say what we mean without work arounds) and decrease it (by introducing pointless choice or by increasing computational burdens which have a direct negative effect on usability).

Common examples (drawn from lectures) were n-ary disjointness (which isn't great as it doesn't "really" increase expressivity) and transitivity + counting (which hits all the points).

31.

People struggled a bit more on this question.

It's important when discussing the benefits that you discuss *net* benefit, that is, benefit in light of the cost. E.g., we have to give up some benefits of an ontology at runtime in order to meet our computational needs.

Some people didn't answer both parts of the question, i.e., the use of the ontology at *dev* time AND at *run* time. The benefits are not the same in each case!

The most obvious runtime benefit is *post coordination* (of various flavors).

It was very difficult to get marks if you didn't discuss inference!

32.

It's important to recognise that in many ways SKOS is *more* expressive than OWL but you can't *do* much with it since the semantics are imprecise. E.g., you can simply say that two terms are related without saying anything more specific about the relation. You can't say that in OWL!

While it's true that SubClassOf is transitive (and reflexive) and narrower is not *necessarily* so, it can be! The key difference is that the semantics of SubClassOf is of sufficient condition, i.e., if I am a member of the subclass then I'm a member of the superclass. In SKOS, a "narrower" term might be "interesting" but more restricted that the
broader term. There's no *formal* meaning for this, so modellers can interpret it as they need. For example, I could use narrower to indicate that there are *fewer* resources associated with that term or that it is of interest to fewer people.

In general, we were looking for *specific* application examples, i.e., where the characteristics of each language would be exploited.