88%

Semantics Midterm

Question 1

1a

`B`'s utterance: `I have a cat.` implies that he has a cat that is *not* a Siamese cat. This is because, by the maxim of ***quantity***, upon `A`'s asking whether `B` has a Siamese cat, if `B` were to have one, he would simply say `yes`, indicating that he does indeed possess an animal that is both a cat, and more specifically a Siamese cat. In the negative case, he would say `no` indicating that he does not have an animal that is simultaneously a cat and a Siamese cat.

good
15/15
in fact the no answer is less informative though because it only denies Siamese, not cat

Thus, by responding with the less straightforward answer, `I has a cat`, `B` implicates by the maxim of ***quantity*** that he has a cat, which is **not** Siamese, because if it were Siamese, he would have given the simpler `yes` answer.

14/15
should also run a cancellation test to show that this is in fact an implicature and not an entailment 9/3

Question 2

2a

$[[\text{the}]]_{\langle\langle e,t\rangle,e\rangle}=\lambda f_{\langle e,t\rangle}.\iota x_e.(f_{\langle e,t\rangle}(x_e)\circ(x_e\in c_{\{e\}}))$ $[[\text{the}]]\langle\langle e,t\rangle,e\rangle=\lambda f\langle e,t\rangle.\iota xe.(f\langle e,t\rangle(xe)\circ(xe\in c\{e\}))$

$[[\text{Alfonso borrowed the book}]]_c=\text{Borrow}(a_e,\iota x_e.(\text{Book}(x_e)\circ(x_e\in c_{\{e\}})))$ [[Alfonso borrowed the book]]c=Borrow(ae,ιxe.(Book(xe)∘(xe∈c{e})))

8/8

That is, `Alfonso borrowed the book` says that an entity named Alfonso Borrowed an object which is the unique entity in this context which fulfills the `Book` predicate.

This has the presuppositions that there must exist exactly 1 in context x that fulfills ff.

2b

good

[[Mother]][[Mother]] is of type $\langle e,\langle e,t\rangle\rangle\langle e,\langle e,t\rangle\rangle$ and [[book]][[book]] is of type $\langle e,t\rangle\langle e,t\rangle$. This is because [[book]][[book]] is very simple, and something's identity as a book is not relational in any way. On the other hand, something

good

8/8

can only fulfill [[Mother]][[Mother]] if it is Female and possesses a child. Essentially, [[Mother]][[Mother]] expects an argument, its child, in possessive construct while [[book]][[book]] does not. This is because someone can only be a mother if it has a corresponding child that goes with it, though something can be a book regardless of such a dependency relationship. Also, unlike similar definite descriptions like `the mother`, `Joanna's Mother`doesn't require context outside of the identity of Joanna to determine who `Joanna's Mother` is. On the other hand. `Joanna's Book` does since Joanna could potentially own many books and without context, it isn't clear which one is being referred to.

good

based on what you had in Lambda Notebook:
your denotation for POSS is a good startign point, but should be more general:
we can say 'Joanna's book' and mean the book she wrote, but doesn't necessarily own

2c

[[Joanna's Mother]]$_e$=[[[[APOSS mother] Joanna]]]$_e$=ιy$_e$.(ιz$_e$.(Female(z$_e$)∘Child(z$_e$,j$_e$))=y$_e$)[[Joanna's Mother]]e=[[[[APOSS mother] Joanna]]]e=ιye.(ιze.(Female(ze)∘Child(ze,je))=ye), has content: the unique entity that is the mother of Joanne.

In this case, [['s]]$_{\langle e,\langle e,t\rangle\rangle,\langle e,e\rangle\rangle}$=λf$_{\langle e,\langle e,t\rangle\rangle}$.λx$_e$.ιy$_e$.f$_{\langle e,\langle e,t\rangle\rangle}$(x$_e$)(y$_e$)[['s]]⟨⟨e,⟨e,t⟩⟩,⟨e,e⟩⟩=λf⟨e,⟨e,t⟩⟩.λxe.ιye.f⟨e,⟨e,t⟩⟩(xe)(ye) and [[mother]]$_{\langle e,\langle e,t\rangle\rangle}$=λx$_e$.λy$_e$.(ιz$_e$.(Female(z$_e$)∘Child(z$_e$,x$_e$))=y$_e$)[[mother]]⟨e,⟨e,t⟩⟩=λxe.λye.(ιze.(Female(ze)∘Child(ze,xe))=ye) (Also [[book]]$_{\langle e,t\rangle}$=λx$_e$.Book(x$_e$)[[book]]⟨e,t⟩=λxe.Book(xe)). I propose that [['s]][['s]] is ambiguous between [['s]]$_{\langle\langle e,\langle e,t\rangle\rangle,\langle e,e\rangle\rangle}$[['s]]⟨⟨e,⟨e,t⟩⟩,⟨e,e⟩⟩ and [['s]]$_{\langle\langle e,t\rangle,\langle e,e\rangle\rangle}$[['s]]⟨⟨e,t⟩,⟨e,e⟩⟩ depending on whether it takes on an ⟨e,⟨e,t⟩⟩⟨e,⟨e,t⟩⟩ like [[mother]][[mother]] or a ⟨e,t⟩⟨e,t⟩ like [[book]][[book]].

good

good

[[Joanna's Mother]]$_e$[[Joanna's Mother]]e is generated via:

Full composition trace. 1 path:

Step 1: [[APOSS]]$_{\langle\langle e,\langle e,t\rangle\rangle,\langle e,e\rangle\rangle}$=λf$_{\langle e,\langle e,t\rangle\rangle}$.λx$_e$.ιy$_e$.f$_{\langle e,\langle e,t\rangle\rangle}$(x$_e$)(y$_e$)[[APOSS]]⟨⟨e,⟨e,t⟩⟩,⟨e,e⟩⟩=λf⟨e,⟨e,t⟩⟩.λxe.ιye.f⟨e,⟨e,t⟩⟩(xe)(ye)

Step 2: [[mother]]$_{\langle e,\langle e,t\rangle\rangle}$=λx$_e$.λy$_e$.(ιz$_e$.(Female(z$_e$)∘Child(z$_e$,x$_e$))=y$_e$)[[mother]]⟨e,⟨e,t⟩⟩=λxe.λye.(ιze.(Female(ze)∘Child(ze,xe))=ye)

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Step 3: [[APOSS]]$_{\langle\langle e,\langle e,t\rangle\rangle,\langle e,e\rangle\rangle}$[[APOSS]]⟨⟨e,⟨e,t⟩⟩,⟨e,e⟩⟩ * [[mother]]$_{\langle e,\langle e,t\rangle\rangle}$[[mother]]⟨e,⟨e,t⟩⟩ leads to: [[[APOSS mother]]]$_{\langle e,e\rangle}$=λx$_e$.ιy$_e$.(ιz$_e$.(Female(z$_e$)∘Child(z$_e$,x$_e$))=y$_e$)[[[APOSS mother]]]⟨e,e⟩=λxe.ιye.(ιze.(Female(ze)∘Child(ze,xe))=ye) **[by FA]**

Step 4: [[Joanna]]$_e$=j$_e$[[Joanna]]e=je

Step 5: [[[APOSS mother]]]⟨e,e⟩[[[APOSS mother]]]⟨e,e⟩ * [[Joanna]]e[[Joanna]]e leads to: [[[[APOSS mother] Joanna]]]e=ιye.(ιze.(Female(ze)◦Child(ze,je))=ye)[[[[APOSS mother] Joanna]]]e=ιye.(ιze.(Female(ze)◦Child(ze,je))=ye) **[by FA]**

2e

Full composition trace. 1 path:

Step 1: [[a]]⟨⟨e,t⟩,⟨⟨e,t⟩,t⟩⟩=λf⟨e,t⟩.λg⟨e,t⟩.∃xe.(f⟨e,t⟩(xe)◦g⟨e,t⟩(xe))[[a]]⟨⟨e,t⟩,⟨⟨e,t⟩,t⟩⟩=λf⟨e,t⟩.λg⟨e,t⟩.∃xe.(f⟨e,t⟩(xe)◦g⟨e,t⟩(xe))

Step 2: [[doctor]]⟨e,t⟩=d⟨e,t⟩[[doctor]]⟨e,t⟩=d⟨e,t⟩

Step 3: [[a]]⟨⟨e,t⟩,⟨⟨e,t⟩,t⟩⟩[[a]]⟨⟨e,t⟩,⟨⟨e,t⟩,t⟩⟩ * [[doctor]]⟨e,t⟩[[doctor]]⟨e,t⟩ leads to: [[[a doctor]]]⟨⟨e,t⟩,t⟩=λg⟨e,t⟩.∃xe.(d⟨e,t⟩(xe)◦g⟨e,t⟩(xe))[[[a doctor]]]⟨⟨e,t⟩,t⟩=λg⟨e,t⟩.∃xe.(d⟨e,t⟩(xe)◦g⟨e,t⟩(xe)) **[by FA]**

Step 4: [[met]]⟨e,⟨e,t⟩⟩=λxe.λye.Met(ye,xe)[[met]]⟨e,⟨e,t⟩⟩=λxe.λye.Met(ye,xe)

Step 5: [[APOSS]]⟨⟨e,⟨e,t⟩⟩,⟨e,e⟩⟩=λf⟨e,⟨e,t⟩⟩.λxe.ιye.f⟨e,⟨e,t⟩⟩(xe)(ye)[[APOSS]]⟨⟨e,⟨e,t⟩⟩,⟨e,e⟩⟩=λf⟨e,⟨e,t⟩⟩.λxe.ιye.f⟨e,⟨e,t⟩⟩(xe)(ye)

Step 6: [[mother]]⟨e,⟨e,t⟩⟩=λxe.λye.(ιze.(Female(ze)◦Child(ze,xe))=ye)[[mother]]⟨e,⟨e,t⟩⟩=λxe.λye.(ιze.(Female(ze)◦Child(ze,xe))=ye)

Step 7: [[APOSS]]⟨⟨e,⟨e,t⟩⟩,⟨e,e⟩⟩[[APOSS]]⟨⟨e,⟨e,t⟩⟩,⟨e,e⟩⟩ * [[mother]]⟨e,⟨e,t⟩⟩[[mother]]⟨e,⟨e,t⟩⟩ leads to: [[[APOSS mother]]]⟨e,e⟩=λxe.ιye.(ιze.(Female(ze)◦Child(ze,xe))=ye)[[[APOSS mother]]]⟨e,e⟩=λxe.ιye.(ιze.(Female(ze)◦Child(ze,xe))=ye) **[by FA]**

Step 8: [[Joanna]]e=je[[Joanna]]e=je

Step 9: [[[APOSS mother]]]⟨e,e⟩[[[APOSS mother]]]⟨e,e⟩ * [[Joanna]]e[[Joanna]]e leads to: [[[[APOSS mother] Joanna]]]e=ιye.(ιze.(Female(ze)◦Child(ze,je))=ye)[[[[APOSS mother] Joanna]]]e=ιye.(ιze.(Female(ze)◦Child(ze,je))=ye) **[by FA]**

Step 10: [[met]]⟨e,⟨e,t⟩⟩[[met]]⟨e,⟨e,t⟩⟩ * [[[[APOSS mother] Joanna]]]e[[[[APOSS mother] Joanna]]]e leads to: [[[met [[APOSS mother] Joanna]]]]⟨e,t⟩=λye.Met(ye,ιye.(ιze.(Female(ze)◦Child(ze,je))=ye))[[[met [[APOSS mother] Joanna]]]]⟨e,t⟩=λye.Met(ye,ιye.(ιze.(Female(ze)◦Child(ze,je))=ye)) **[by FA]**

Step 11: [[[a doctor]]]⟨⟨e,t⟩,t⟩[[[a doctor]]]⟨⟨e,t⟩,t⟩ * [[[met [[APOSS mother] Joanna]]]]⟨e,t⟩[[[met [[APOSS mother] Joanna]]]]⟨e,t⟩ leads to: [[[[a doctor] [met [[APOSS mother] Joanna]]]]]t=∃xe.(d⟨e,t⟩(xe)◦Met(xe,ιye.(ιze.(Female(ze)◦Child(ze,je))=ye)))[[[[a doctor]

8/8 [met [[APOSS mother]
Joanna]]]]]t=∃xe.(d⟨e,t⟩(xe)◦Met(xe,ιye.(ιze.(Female(ze)◦Child(ze,je))=ye))) **[by FA]**

Question 3

3a

Epithets such as `fucking` or `darn` add a certain amount of emotion to the `DP`, but doesn't in any way affect the truth values. That is, one cannot say that if `Alfonso broke the damn computer.` that there must exist a `computer` that
good fulfills `damn` objectively. Rather, `damn` is simply an intensifier which shows the disdain at the sentence level that the speaker feels about the situation. Also, it is important to note that the fact that `damn` occurs in the `DP` doesn't mean that the disdain in the sentence is about the `computer`, but rather more sentence level as if someone broke your computer, you are not annoyed at the computer, but logically at the person who did it, or the action itself.

The word `fucking` can actually be moved into different positions to express
good that. For example: `Fucking Alfonso broke the computer` VS `Alfonso fucking broke the computer` VS`Alfonso broke the fucking computer` express disdain in 3 separate portions of the sentence. In the first, the speaker is pushing disdain onto `Alfonso`. In the second, the disdain is on the action of`breaking`. In the third, the disdain is on the `computer` itself. It should also be noted that in all of these
11/11 sentences, there is also another interpretation of the disdain being sentence level and not localized to any particular entity or event in it in which the speaker is simply unhappy, or alternatively excited. Regardless, the addition of epithets like `fucking` function as an intensifier which may have positive or negative connotation.

3b

In many cases, these epithets seem to transcend the description of individual actors in the sentence and instead intensifies the sentence itself. For example, in the sentence`I know that Alfonso broke the fucking computer`, `fucking` is not necessarily "owned" by the inner context as much as it is an expression of sentence-level disdain of what has *supposedly* occurred. Thus, I believe that descriptions such as these transcend semantics. It isn't right to say that

5/11 If we are, though, to assume that epithets can belong to particular sub-portions of the sentence, then I would argue that they always escape through "holes". For example, if one were to say`I know that you broke the fucking computer,`

this is a good first step:
if they project they might be presuppositoins
are they cancellable?
if they are like implicatures it doesn't seem right to call them conversational since they don't obviously follow from any of Grice's sub maxims

the intensity added by `fucking` in `you broke the fucking computer` is also apparent in `I know that you broke the fucking computer.`

3c

As per our current level of formalism, epithets can *very informally* be thought about as being of type ⟨e,t⟩⟨e,t⟩ as long as the function can condition on certain variables of the context including the overall sentiment that the speaker is currently feeling and his/her feeling on various other entities and concepts.

good

In such a formalism of epithets, all of these opinionated *fact* predicates can be evaluated there as truth conditions where they only really look at the context to determine *truth*. For example, in`the damn computer`, we would at the top level, have to let [[the damn computer]]e[[the damn computer]]e pick out the unique entity in context that the speaker feels disdain for and is a computer. Within this, [[damn]]⟨e,t⟩[[damn]]⟨e,t⟩would determine the truth of `computer` fulfilling its `damn` predicate based on the context, and as per that, [[the damn computer]]e[[the damn computer]]e would pick out the unique in context computer that is thought of with disdain by the speaker. This is formalized as a parametrization at the function level.

9/11

good

attempt the skeleton of a lambda function given the formal tools we do have

3d

these suprasemantic modifiers change the overall mood/tone of the sentences. This could be captured in a way similar to event semantics where the situation has properties, such as its being perceived as`stupid`.

not clear what you mean, how that different from your inersective analysis above?

this was really about figuring out how to encode via lambda calculus the intensity and valence that the range of epithets express