4th Interdisciplinary School on Applied Ontology

Ontology Pub Quiz

** *Solutions* **

Enter the following details

Team Number :

_____

Name (optional) :

_____

Marks	: 5 per question

Marks : **5 per question**

Time : **5 minutes per question**

Instructions:

a) Answer all questions.

b) Write your answers in PEN in the spaces provided.

c) Show all justifications where applicable.

FOR OFFICIAL USE ONLY:

Question	1	2	3	4	5	6	7	8
Max	5	5	5	5	5	5	5	
Marks 0 1 2 3 4 5 6 7 8 9	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
Marker								

Question 1 [5]

1. Which one is the odd one out, and why?
    a) Proton.
    b) Neutron.
    c) Electron.
    d) Chronon.

D. The other three are physical objects, whereas chronon is the smallest timeslice (used in several temporal logics)

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2. Who authored the most frequently cited ontology paper in the first half of the 20th century (1901 - 1950)?

R Carnap - Empiricism, semantics, and ontology - Revue internationale de philosophie, 1950

3. There's trope theory in ontology, with its definition of "trope". But which one(s) of the following also hold for "trope"?
    a) A musical embellishment of texts.
    b) Archaic geometry term for a tangent line or plane.
    c) Cliché.
    d) Anglicization of troupe (group; e.g., of dancers).

a-c

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4. Is a disease a material entity, a processual entity, a quality or a realisable entity?

(any of this, dependent on the case. E.g. if the disease is not active, then it is rather not a processual entity. If it is active, e.g. a myocardial infarction, it is not a realisable. There is mostly some material thing involved, but this material aspect is less obvious with many psychiatric and behavioural disorders).
There might be a clear answer by the BFO people, who would follow's OGMS re-definition of disease as disposition (which IMHO is an artificial change of the meaning of this word and which is difficult to replicate in other languages)

5. Which of the following is/are anti-rigid?
    a) Person.
    b) Student.
    c) Banana.
    d) Divorce of a couple.

student, divorce [the couple were at some point necessarily not in a divorce, being married —one may argue]

Question 2

1. Can all pub quizzes be interesting?

_____

_____

_____

2. The Kingdom of Lesotho (a country) is entirely surrounded by South Africa. Which relation from which theory do you need to represent that?

_____

3. What kind of entity is Software, and why?

   a) endurant/continuant, for it is the written code

   b) perdurant/occurrent, for it is only software when the code is executed

   c) an abstract entity, because it represents an idea

   d) neither, because…

_____

4. Which of the following does not exit?

   a) Paleontology

   b) Nontology

   c) Zoontology

5. Try to define "fantology" (without searching online!)

   _____

   _____

Question 3

1. Where/when can a pointless theory be relevant?

in spatial ontology and logics

2. Is a hurricane an object, a process, or an event?

It could be any of these depending on the point of view from which it is described - lots of scope for interesting discussion there!

3. Given the principle of unique unrestricted composition (to the effect that every plurality of things has a unique fusion), which of the following additional principles will suffice to yield a complete axiomatization of classical mereology?
   a) antisymmetry of part
   b) transitivity of part
   c) weak supplementation

   C

4. Sets have members as their most basic constituents. What is the counterpart to that in mereology?

   Answer: Atom

5. When was the earliest published occurrence of the word "ontology"?

   Answer: 1606, in Jacob Lorhard "Ogdoas Scholastica"

Question 4

1. If parthood is interpreted as set inclusion, what is the set-theoretic relation corresponding to overlap?

    Intersection

2. Which of the following relation(s) really do require a temporal modality in the language to represent its meaning fully?

    a) x precedes y

    b) x is derived from y

    c) x is an immutable part of y

    d) x participates in y

    A-C. Immutable part too: x is an essential part of y for as long as it is an instance of X. Participation not necessarily, though it could have some duration added to it.

3. Which ontological commitment does DOLCE take regarding attributions?

    a) universalism

    b) trope theory

    c) universalism + tropes

    A

4. How does Ontology affect language (logic) design?

    there are many possible answers here: on the attributes (to have them or not), the relations (standard view vs positionalist), 3D vs 4D...

5. How many papers with the words "ontology" / "ontologies" / "ontological" in it can be found in Google Scholar?

    Nearly 1.520.000

Question 5

1. Who authored the most frequently cited ontology publication in the second half of the 20th century (1951 – 2000)?

    TR Gruber - A translation approach to portable ontology specifications -Knowledge acquisition

2. Who first put the word "ontology" into the plural ?

    Voltaire (1768): "Toutes les ontologies, toutes les psycologies ne sont-elles pas des rêves?" (Lettre à M. Le Compte D'Argental: "Sur les qualités occultes") (evidence from Google Books)

3. Relations/relationships are ontologically 'standard view', 'positionalist' or 'anti-positionalist'. Which commitment is taken in First Order Predicate Logic?

    Standard view

4. Is the Ontology Quiz a continuant, an occurrent, both, or neither?

    depends… The quiz qua collection of questions to be answered, which is a continuant; The actual event on Friday evening when the questions are posed and people attempt to answer them, which is an occurrent.

5. What is the difference between the hand being part of the boxer, the heart being part of a human, and brain being part of a human?

    Answer: immutable, mandatory, essential part, respectively

Question 6

1. DLs have sound and complete reasoning/inference algorithms. Why is this an important feature?

   a) No wrong inferences are drawn.

   b) All the correct inferences are drawn.

   c) Both A. and B. holds

   _____

   C. A is true for a Sound algorithm, and B holds for complete algorithms.

2. What are the two core temporal constructs or operators from which others—such as 'some time in the future', 'at all times', and 'the previous instant'—can be defined?

   _____

   Answer: The Since and Until operators

3. Given that YAMATO is an ontology and the name of a battleship, that DOLCE is an ontology and the name of a type of food; that SUMO is an ontology and a type of fight sport, in which order should you apply the ontologies?

   _____

   _____

   _____

   several combinations are possible, my preferred is: first SUMO (nonthreatening fight), then DOLCE (pleasant break), finally YAMATO (go to war)

4. What is the ontological difference between "sign" and "symptom"?

   _____

   _____

   _____

   Ontologically they cover a broad spectrum (processes, objects, qualities). The difference is that signs can be objectified (by observation, measurement or diagnostic procedures), whereas symptoms are subjective impressions (e.g. pain).

5. Who proposed mereology about a century ago, and may be considered the 'father' of mereology?

   _____

   Stanislaw Lesniewski

Question 7

1. Does the mereological principle of strong supplementation imply the extensionality of parthood?

> *yes*

2. Consider the three foundational ontologies: BFO (basic formal ontology); GFO (general formal ontology) and UFO (unified foundational ontology). How should one name an ontology that merges the three?

> *[fun answer] BUG-FO; [debatable answer] MFO*

3. What is the proper term in ontology of those objects that in natural language are generally referred to with mass nouns?

> *stuff, amount of matter. That is, those uncountables, or only countable in quantities; e.g., gold, water, mayonnaise, beer*

4. The Metaphysics of Quality was introduced in which popular fiction novel?
   a) Zen and the art of motorcycle maintenance
   b) Crime and punishment
   c) The hunger games
   d) The revenge of Gaia

> *A*

5. Do mountains exist?
   a) Yes, because humans refer to landforms such as "Mont Blanc" and "Mount Everest" in their discourse and everyday conversation.
   b) No, because all mathematical representations of terrain do not need the concept of a "mountain".
   c) It depends on the definition of "exist"
   d) Other, namely...

> *Mountains may be necessary concepts of a human description of landforms, but are not required in computer representations of terrain.*