UNIVERSITY OF JOHANNESBURG

COURSE: **Complementary Studies 3** **TIME: 3 hours**

QUESTION PAPER: 1 **MARKS: 100**

SUBJECT CODE: **CPS3A01 (Ethics and Engineering)**

EXAMINER: Dr Asheel Singh

MODERATOR: Dr Yolandi Coetser

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES AND THREE (3) SECTIONS

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1. Answer all the questions in Section A, Section B, and Section C.
2. Read through all the questions carefully before answering.

SECTION A (25 marks)

Multiple Choice Questions/Multiple Answer Question (MCQs/MCA)

Instructions:

1. For the MCQs, select the ONE correct option from the list provided.
2. For the MQA, select ALL the options that are correct from the list provided, as there will be no partial grading.
3. Each question is worth 5 marks.
4. There will be no negative marking.

1. (MCQ) According to how it has been presented to you in this module, which ONE of the following ethical theories explicitly prescribes "honouring relationships of sharing a way of life and caring for others' quality of life"?:

a) ubuntu
b) deontology
c) virtue ethics
d) utilitarianism
e) egoism

2. (MCQ) Fill in the blank by choosing the correct letter: Recall the Milgram experiment from the 1960s, where volunteers were asked to deliver electric shocks to "learners" whenever they made mistakes in answering questions. As it was taught to you in this module, this experiment is meant to highlight the dangers of _____ :

a) uncritical acceptance of authority, because only some of the 'teachers' were virtuous enough to challenge the instructions of the authority figure in the experiment.
b) failing to seek out the truth, because the some of the answers to the questions the 'teachers' asked the 'learner' were wrong.
c) normalising deviance, because punishment via electric shock is morally wrong, especially in education.
d) groupthink, because there were multiple 'teachers', and most of them complied with the instructions.
e) deliberate deception, because the 'learner' in the other room was in fact an actor or a recording.

3. (MCQ) According to your readings, companies that take a ''progressive'' attitude toward the environment (choose the best answer):

a) have a CEO that is attentive to environmental considerations.
b) support the environment in a way that goes beyond what is required by law.
c) often take the perspective that not only human beings have intrinsic value.
d) may have well-staffed environmental divisions.
e) (All of the items on this list describe aspects of the 'progressive' attitude toward the environment.)

4. (MAQ) Select ALL the items that belong on this list, leaving out those (if any) that do not:

a) Dharma
b) Truth
c) righteousness
d) *Maat*
e) the moral law

5. (MCQ) Fill in the blank by circling the correct letter: The Fictional Petroleum Company accepts government's environmental regulations, and even has established company policies that deal with environmental issues. Nevertheless, the company approaches environmental considerations with skepticism and a lack of enthusiasm. The Fictional Petroleum Company thus displays a _____ attitude toward the environment:

a) minimalist
b) sub-minimal
c) progressive
d) microscopic
e) Socratic

SECTION B (25 marks)

Short answer questions

Instructions:

1. Answer ALL the questions in this section.
2. Please answer in full sentences, not bullet points.

1. According to what you have learnt in this module, how can a proper understanding of the connection between narrative and meaning in life help you succeed in your future career as a professional engineer? (10)

2. With reference to the section on impediments (obstacles) to responsible action in engineering, pick one impediment from the list we discussed in this module and discuss BOTH of the following:

a) why you think this could be a challenge for you in your future career, and

b) how you think you can overcome it. (10)

3. What is the one virtue you would most like to develop in yourself, and why? (5)

SECTION C (50 marks)

Op-Ed/Opinion Piece (50 marks)

Write an **op-ed/opinion piece** of between 750 - 1000 words on the following topic:

'How Engineering Could Help Us Better Cope with Future Global Pandemics'

Instructions:

1. If it helps, you can think of this as **a regular academic essay**; I am choosing to call it an op-ed, because I want to encourage you to think

about a) what sort of contribution you want to make to humanity, and b) how best to express your vision in writing.
2. Write this as though you are intending to submit it to a newspaper, magazine, or online publishing platform you admire (I encourage you to eventually actually submit it for publication!)
3. Read op-eds/opinion pieces written about the COVID-19 pandemic to give you an idea about what has been written, and how best to structure your own piece of writing. **But be sure to acknowledge your sources** using the Harvard referencing style.

Section A: 25

Section B: 25

Section C: 50

Total: 100