UNIVERSITY OF JOHANNESBURG

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|---|---|
| **FACULTY** | : Education |
| **DEPARTMENT** | : Science and Technology Education |
| **CAMPUS** | : APK |
| **MODULE** | : METHODOLOGY AND PRACTICUM:FET PHYSICAL SCIENCES 4 (MOFPPY4) |
| **SEMESTER** | : Second |
| **SUBMISSION** | : November 2019 |

**ASSESSOR(S)** : Dr S Ramaila

**MODERATOR** : Prof S Singh (UL)

**DURATION** : SUBMISSION **MARKS** : 100

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NUMBER OF PAGES: 3 PAGES

INSTRUCTIONS:

1. Answer ALL THE QUESTIONS.
2. Number your answers clearly.
3. Type your work neatly and diagrams or illustrations should be clear.

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**QUESTION 1: Constructivist learning in science teaching**

The inquiry-based approach can be used as a tool to promote constructivist learning in science teaching.

1.1 Describe how you employed an inquiry-based approach in teaching science topics during work-integrated learning (WIL). **(20)**

1.2 Explain how an inquiry-based approach can be used to demystify abstract concepts by using specific examples in Physical Sciences. **(30)**

**[50]**

**QUESTION 2: Nature of Science**

The nature of science is an essential tenet in science education.

2.1 Describe how you integrated nature of science to curriculum as a Physical Sciences teacher during work-integrated learning (WIL). **(20)**

2.1 Discuss the significance of the nature of science in science teaching and learning. **(30)**

**[50]**

**Total: 100**

**Appendix 1 and 2 are rubrics for questions 1 and 2 respectively.**

## Appendix 1

| | Levels and descriptors | | | |
|---|---|---|---|---|
| | **1-5** Poor | **6-10** Satisfactory | **11-15** Good | **16-20** Excellent |
| 1.1 | Superficial description | Adequate description | Meaningful description that answers the question | Coherent, meaningful and explicit description which adequately answers the question |
| | **0-5** Poor | **6-10** Satisfactory | **11-15** Good | **16-30** Excellent |
| 1.2 | Superficial discussion | Adequate description | Meaningful discussion that answers the question | Coherent and meaningful discussion which adequately answers the question |

## Appendix 2

| | Levels and descriptors | | | |
|---|---|---|---|---|
| | **1-5** Poor | **6-10** Satisfactory | **11-15** Good | **16-20** Excellent |
| 1.1 | Superficial description | Adequate description | Meaningful description that answers the question | Coherent, meaningful and explicit description which adequately answers the question |
| | **0-5** Poor | **6-10** Satisfactory | **11-15** Good | **16-30** Excellent |
| 1.2 | Superficial discussion | Adequate description | Meaningful discussion that answers the question | Coherent and meaningful discussion which adequately answers the question |