

**National Open University Of Nigeria**

**Plot 91, Cadastral Zone, NnamdiAzikiwe Expressway, Jabi - Abuja**

**Faculty of Science**

 **JANUARY/ FEBRUARY 2018 EXAMINATION**

**COURSE CODE: BIO 408 (2 CREDIT UNITS) TIME ALLOWED: 2HOURS**

**COURSE TITLE: SOIL ECOLOGY**

**INSTRUCTION: QUESTION ONE IS COMPULSORY AND ANY OTHER THREE QUESTIONS.**

1a What is Bio-Integration? **(6 marks)**

1b Outline and explain the factors determining soil formation (**15 marks)**

1c Outline the four soil formation processes (**4 marks)**

2a List any three primary pools or reservoirs of nutrients in a soil (**3 marks)**

2b What is a soil moisture regime? **(3marks)**

2c Outline and define the five main classes of soil based on soil moisture regime

**(9 marks)**

3a Enumerate the six basic types of reactions governing Chemical weathering

**(6 marks)**

3b List and explain any three major causes of physical weathering (**9 marks)**

4a What is Biogeochemical Weathering **(3marks)**

4b Briefly, describe the four principal shapes of soil (**12 marks)**

5a Identify and describe any four factors affecting the growth of soil organisms**(12 marks)**

5b Outline any three merits of Soil Organisms (**3 marks)**