FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI,
SCHOOL OF AGRICULTURE AND AGRICULTURAL TECHNOLOGY,
DEPARTMENT OF SOIL SCIENCE AND TECHNOLOGY,
2018/ 2019 RAIN SEMESTER SESSION EXAMINATION.

COURSE CODE: SST 302; Units :2
COURSE TITLE: SOIL AND WATER CONSERVATION MANAGEMENT

INSTRUCTIONS: ANSWER FIVE (5) QUESTIONS IN ALL. AT LEAST 2 QUESTIONS FROM EACH SECTION SHOULD BE ANSWERED.

TIME: 2 1/2 HOURS. DATE: 23RD OCTOBER 2019

SECTION A

1 Briefly describe the following methods of erosion control in FUTO environment.
(i) Agronomic methods (ii) Engineering methods

2 Describe crop rotation as a method of organic matter maintenance in tropical agriculture under the following headings:
i Definition ii Advantages (iii) Choice of crops for rotation

3. (a) Differentiate between insitu and cut and carry mulching systems
(b) Enumerate the important of mulching in maintenance of organic matter in soil

SECTION B

4 Soil acidity is one of the problems confronting farmers. What are acidic soils and what are the different ways of managing acidic soils

5 What do you understand as soil moisture tension (SMT)?.

(b) The tension at which water is held in the soil pores vary from soil to soil. Discuss?

6 (a) The complete path of water moving from the soil through plants to the atmosphere is a continuum, Discuss the roles of the plants, the soil, and the atmosphere in soil water plant relationships

(b) Define the following terms : (i)Field capacity (ii) Available water (iii) Gravitational water (iv) Permanent wilting point

7 (a) Define drainage and state any three (3) effects of poor drainage conditions in agricultural lands

(b) State any two advantages and disadvantages of each of surface and sub surface irrigation systems.