National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
2020_1 EXAMINATION

COURSE CODE: EMT 308
COURSE TITLE: Environmental Aspects Of Pesticides And Other Toxicants Use
CREDIT: 2 Units
TIME ALLOWED: 2 Hours
Instruction: Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) is compulsory and carries 25 marks, while the other questions carry equal marks (15) each

1a) What are pesticides? **(6 marks)**
1b) List and explain the three "signal words" that indicate the relative toxicity of pesticides to humans. (**6 marks)**
1c) List the types of enzymes used in enzymatic conversions and the different non-enzymatic pesticide conversion processes in the environment. **(7 marks)**
1d) List six (6) pesticides that the FOA and WHO have recommended residue limits when used for the protection of grains. **(6 marks)**

2a) The fate processes of pesticides fall into three major types when released in to the soil. List them. **(3 marks**)
2b) Discuss any one (1) of the major fate processes of pesticides in soil, as in '2a' above. **(12 marks)**

3a**)** Outline the factors that control the mobility of pesticides in the soil environment. **(4marks)**
3b) Outline soil properties that exert significant influences on the fate and transport of pesticides in croplands **(4marks)**
3c) Discuss the management practices that affect the mobility of pesticides in soils **(7marks)**

4a) Outline the factors that affect the mobility of trace elements in soils **(6 marks)**
4b) With the aid of a table, summarize the effects of foil factors on trace metal mobility and / or bioavailability. **(9 marks)**

5a) Briefly discuss pesticide residues in cereals and pulses. **(8 marks)**
5b) What is the result of the study in Nigeria on organochlorine pesticide residues in cereal grains? **(7 marks**)