



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
2021_2 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 is a pesticide? (2 marks)
- 1b) Highlight on sanitary fundamentals of pesticide application? (5 marks)
- 1c) Examine the likely risk associated with long term pesticides exposure? (5 marks)
- 1d) State five precautions required in sanitary fundamentals of pesticides applications? (5 marks)
- 1e) Discuss the safe techniques as a precaution in sanitary fundamentals in pesticides application? (5 marks)
- 1f) Highlight first aid treatment as an emergency measure in pesticides application if breathing stop? (3 marks)

- 2a) Examine the site conditions affecting the mobility of pesticides in soil (6 marks)
- 2b) State any four personnel safety recommendations in a fumigant action and systematic activity (4 marks)
- 2c) Examine the types of fumigant action and activity (5)

- 3a) Discuss the nature of fumigants action and activity (5 marks)
- 3b) Highlight some of the enzymatic conversions with potentials of detoxifying pesticides in the environment (5 marks)
- 3c) Highlight the behavior and the fate of pesticides in waters (5 marks)

- 4a) Elaborate on the influence of chemical transformation on degradation of pesticides in soil and water (5 marks)
- 4b) Discuss the transportation of pesticides in surface waters as a transformation on degradation of pesticides in soil and water (5 marks)
- 4c) Highlight the role of heavy metals as soil contaminant (5 marks)

- 5a) Discuss the engineering remediation of heavy metal contaminated soils (5 marks)
- 5b) Highlight the effects heavy metals contamination in water (4 marks)
- 5c) Discuss phytoremediation processes and application in remediation of heavy metal in soils (6 marks)