



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
2020_2 EXAMINATIONS

COURSE CODE: EMT304

COURSE TITLE: Hazardous Substance Management

CREDIT: 2Units

TIME ALLOWED: 2 Hours

Instruction: Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) carries 25marks, while the other questions carry (15) marks each.

- 1a). Describe bioreactor treatment of hazardous substances (5 marks)
- b). Describe in detail deep well waste disposal system. (5 marks)
- c). Discuss the natural routes or sources of hazardous substances into the environment (10 marks)
- d). State five advantages of fluidized bed incineration system. (5 marks)

- 2a). What is ultimate disposal in terms of hazardous waste? (3 marks)
- b). List two factors that influence ultimate disposal. (2 marks)
- c). What do you understand as multiple hearth incineration system? (5 marks)
- d). Describe in detail fluidized bed incineration system. (5 marks)

- 3a). Describe composting in terms of bio-treatment of hazardous substances. (10 marks)
- b). Define controlled or an engineered landfill. (3 marks)
- c). What is eutrophication? (2 marks)

- 4a). Discuss in detail acclimation procedure (12 marks)
- b). Define hazardous substance. (3 marks)

- 5a). List three modifications that activated sludge has undergone (3 marks)
- b). Describe each of these modifications. (12 marks)