



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**Plot 91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI, ABUJA**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE**  
**2024 1 EXAMINATION**

**COURSE CODE: EHS 409**

**COURSE TITLE: SEWAGE AND WASTE WATER TREATMENT**

**COURSE UNITS: 2 CREDIT UNITS**

**TIME ALLOWED: 1½ HOURS**

**TOTAL SCORE: 70 MARKS**

**INSTRUCTION: ANSWER ALL QUESTIONS**

- 1a. Explain the three major types of Waste-water sewerage system (7marks)
- 1b. Enumerate the intrinsic factors that make Food liable to microbial spoilage (5marks)
- 1c. Discuss the process of Vinegar production (5marks)
- 1d. Highlight the disadvantages of Screening in Waste water treatment plant (8marks)
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- 2a. What is Industrial or Trade Sewage (3marks)
- 2b. Describe the Secondary treatment of Waste water (6marks)
- 2c. Explain the factors that influences characteristics of Waste water (5marks)
- 2d. Discuss the Chemicals that are "generally regarded as safe" (GRAS)  
Give examples. (6marks)
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- 3a. Describe the three (3) Oxygen state (8marks)
- 3b. Discuss preservation process (9marks)
- 3c. Enumerate the advantages and disadvantages of comminutors and grinders (8marks)