NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI, ABUJA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE
2024_2 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: ATTEMPT ALL QUESTIONS

1a. Explain briefly the following terms: (i) Black water **(2marks)**   (ii) Gray water **(2marks)**   (iii) Reverse Osmosis **(3marks)**
1b. List the uses of Carbon filters **(3marks)**
1c. Outline the average characteristics of raw waste-water   **(5marks)**
1d. Other than drinking water and waste purification, highlight other applications of reverse osmosis **(5marks)**

2a. Explain the differences between ordinary BOD and BOD_5 **(5marks)**
2b. Differentiate between the two categories of microbial food poisoning. Give two (2) examples for each category   **(6marks)**
2c. Outline five (5) criteria for an ideal indicator organism   **(5marks)**
2d. Briefly discuss the causes of corrosion in waste water treatment plant   **(4marks)**
2e. Highlight the uses of ultraviolet sterilization   **(5marks)**

3a. Describe the primary treatment of Waste water   **(6marks)**
3b. Explain the process of Sludge treatment   **(6marks)**
3c. List the uses of sludge treatment   **(4marks)**
3d. Describe the examples of environment impacting on the human health   **(5marks)**
3e. What is corrosion   **(4marks)**