



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi- Abuja.
Faculty of Health Sciences
Department of Environmental Health Science
APRIL 2022_2 EXAMINATION

Course Code: EHS 409

Course Title: SEWAGE AND WASTE WATER TREATMENT

Course Unit: 2 Credit Units.

Time Allowed: 1 ½ Hours

Total Score: 70 Marks.

Instruction: Answer All Questions.

Question 1.

- (a) According to West Africa Health Examinations Board (WAHEB) (1991), sewage is the collective name for the liquid waste of a community. Identity and list at least five sources of sewage **(5 marks)**.
- (b) Our concern to treat waste water is because of its negative impact on the environment. What are these negative impacts? **(5 marks)**.
- (c). What is the first process in a conventional waste water treatment plant? **(1mark)**. Mention two categories of that process. **(4 marks)**.
- (d). Give two objectives for adopting this process in question 1c. **(5 marks)**.

Question 2.

Assuming that you enter the premises of a waste water treatment plant and you met no one to guide you, but the manifest of the treatment plant is given to you.

- a. How will you identify the sedimentation tank on ground? **(5 marks)**.
- b. What are the three factors that affect rate of sedimentation? **(10 marks)**.
- c. Mention the zones inside a sedimentation tank **(5 marks)**.
- d. Why are rectangular sedimentation tanks very popular? **(10 marks)**.

Question 3

- (a) State four (4) advantages of Separate Sewerage systems **(10 marks)**.

(b) Mention at least four (4) sources of liquid wastes that can be seen in the floor drain of a standard motor garage. **(10 marks)**.