



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SCHOOL OF HEALTH SCIENCES
SEPTEMBER/OCTOBER 2015 EXAMINATION

COURSE CODE/TITLE: EHS409 - Sewage & Wastewater Management (2 Credit Units)

INSTRUCTION: Answer ALL Questions(Total Marks =70%)

Time Allowed: 2Hrs.

1. Write short notes on the following
 - (a) Total Nitrogen (TN) & Total Phosphorus (TP)
5marks
 - (b) Nitrogenous Biochemical Oxygen Demand (NBOD)
5marks
 - (c) Chemical Oxygen Demand (COD)
5marks
 - (d) Ultimate Biochemical Oxygen Demand (UBOD)
5marks
2. With the aid of a well labeled diagram, discuss the concept of Osmosis and Reverse Osmosis.
15marks
3. Using some examples, briefly discuss five (5) criteria Environmental Microbiologists use as an indirect indicator of evidence for identifying water contaminated by human pathogens especially those of fecal origin. 15marks
4. (a) Discuss briefly, three (3) important factors that affect the process of sedimentation of wastewater. 9Marks
(b) List Five (5) best management practices for the treatment of sewage in a Restaurant 5Marks

(c) Illustrate briefly six (6) negative impacts of wastewater on the environment.
6marks