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**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESS WAY, JABI, ABUJA.**

**FACULTY OF HEALTH SCIENCES**

**JULY 2017 EXAMINATION**

**COURSE CODE: EHS 409**

**COURSE TITLE: SEWAGE & WASTEWATER MANAGEMENT**

**COURSE UNITS: 2 CREDIT UNITS**

**TIME ALLOWED: 1 ½ Hours**

**TOTAL MARKS: 70%**

**INSTRUCTION: ANSWER ALL THE QUESTIONS**

**1.** (a)Define Corrosion (1Mark)

(b). Explain clearly, how corrosion in wastewater treatment units is formed. (2Marks)

(C) List 4 effects of corrosion and 3 effects of Scaling. (7Marks).

(d). Describe 5 corrosion control measures. (10Marks)

2. (a)How is Sludge produced? (5Marks)

 (b). Enumerate five(5) processes and (5) importance of Sludge Treatment. (10 Marks)

1. Using some examples, briefly discuss five (5) criteria which environmental microbiologists normally employ as indirect indicatorevidence for identifying water contaminated by human pathogens especially those of fecal origin. (15 Marks)
2. (a) Write short notes on the following

(b) Chemical Oxygen Demand (COD) 5marks

(c) Ultimate Biochemical Oxygen Demand (UBOD) 5marks

(d) Total Nitrogen (TN) & Total Phosphorus (TP) 5marks

(e) Nitrogenous Biochemical Oxygen Demand (NBOD) 5marks