



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
MARCH/APRIL 2016 EXAMINATION

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: ESM322 CREDIT UNIT: 2
COURSE TITLE: WATER AND WASTEWATER MANAGEMENT

DURATION: 2 HOURS

INSTRUCTION: *Answer any 4 questions*

1. (a) What is alkalinity and how is pH related to the acidity or alkalinity of a water body or water source? 15mks
(b) List five ions responsible for the salinity of a water body. 2 ½ mks
2. Discuss extensively the specific effects of contaminated water supply. 17 ½ mks
3. (a) List the forms of or classes of water pollutants. 8mks
(b) What are non-point sources of pollutants and how would you contrast these sources with point sources? 6mks
4. How is drinking water treated? Describe. 17 ½ mks
5. (a) Highlight the biological systems available for treating biodegradable wastewaters. 6mks
(b) Discuss the preliminary and secondary wastewater treatment techniques. 11 ½ mks
6. (a) What are the major motivational factors for the reuse or recycle of wastewater? 9mks
(b) State the advantages and disadvantages of temperature adjustment and screening in the preliminary treatment of wastewaters. 8 ½ mks