



# CRAWFORD UNIVERSITY

Faith City, Igbesa, Ogun State.

2017/2018 HARMATTAN SEMESTER EXAMINATION

COLLEGE: NATURAL AND APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

PROGRAMME: MICROBIOLOGY

COURSE CODE: MCB 429

COURSE TITLE: ENVIRONMENTAL MICROBIOLOGY

UNITS: 2

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER ANY FOUR QUESTIONS.

1. (a) Explain Domestic Wastes. 5marks  
(b) Describe in details the three major tests that are used to assess the amount of organic matter in waste water. 10marks
  
2. (a) What is Environmental Microbiology? 5marks  
(b) Write short notes on the following:  
(i) Atmo-ecosphere  
(ii) Abiotic factors  
(iii) Hydro-ecosphere  
(iv) Biofilms  
(v) Xenobiotics 10marks
  
3. (a) What are indicator organisms? 5marks  
(b) Enumerate and discuss the key criteria for ideal bacterial indicators of faecal pollution 10marks
  
4. (a) What are water-borne pathogens? 5marks  
(b) Write briefly on the following water-borne pathogens:  
(i) *Vibrio parahaemolyticus*  
(ii) *Yersinia enterocolitica*  
(iii) *Shigella boydi*  
(iv) *Salmonella paratyphi*  
(v) *Campylobacter jejuni* 10marks
  
5. (a) Discuss the *three* major tests used to assess the amount of organic matter in waste water. 10marks  
(b) Enumerate at least *five* types of Autochthonous neuston microbiota. 5marks
  
6. (a) Explain the objective of water treatment 5marks  
(b) Describe how treatment of groundwater can be achieved. 5marks  
(c) Describe how treatment of surface water can be achieved. 5marks

Good Luck!!!

c.		
d.		
d.		
e.		
f.		
g.		
h.		
i.		
j.		

(10 Marks)

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