



CRAWFORD UNIVERSITY

FAITH CITY, IGBESA, OGUN STATE

2020/2021 HARMATTAN SEMESTER EXAMINATIONS

COLLEGE: NATURAL AND APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

PROGRAMME: MICROBIOLOGY

COURSE CODE: MCB 309

COURSE TITLE: BACTERIA DIVERSITY

COURSE UNIT: 3

INSTRUCTION: ANSWER QUESTIONS 1 & 2 WITH ANY THREE

TIME ALLOWED: 3 hrs

1. With the aid of a well labeled diagram, describe the structure and functions of a bacterial cell 5mks
 - 1b. Discuss bacterial cell wall as it relates to Gram's positivity and negativity 10mks
2. As a Medical Microbiologist, a 6-year-old boy that presented with diarrhea, vomiting and fever for the past 3 days after ingesting an undercooked shell fish was brought to you. Processed sample from the boy revealed a Gram negative organism that formed colorless colonies on MacConkey agar.
 - a. Which bacteria is most likely the cause of this infection? 2mks
 - b. Describe the isolation process of this organism in the laboratory 5mks
 - c. what is the Selective medium for the growth of this organism? 2mks
 - d. Describe the three major antigens that enhanced the virulence of this agent 6mks
3. Describe the family of *Neisseriaceae* using two major pathogenic examples 3mks
 - b why are young girls more susceptible to this infection compared with female adults 2mks.
 - c. Explain the laboratory diagnosis of gonococcus infection 5mks