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**JOMO KENYATTA UNIVERSITY  
OF  
AGRICULTURE AND TECHNOLOGY  
UNIVERSITY EXAMINATIONS 2022/2023**

**END OF SEMESTER EXAMINATIONS FOR DEGREE OF  
MASTER OF SCIENCE IN MEDICAL MICROBIOLOGY**

**TMM 3102: ANAEROBI MICROBIOLOGY**

**DATE: FEBRUARY 2023**

**TIME: 3 HOURS**

Each question carries 25 marks

1. Anaerobic bacteria of medical significance can be classified based on their shape and gram stain uptake, by use of relevant examples describe the classification.
2. Anaerobic infections are mostly derived from the host's own endogenous flora, Discuss factors that predispose the development of such infection.
3. By use of relevant examples, describe the various virulence factors associated with anaerobic bacteria infection
4. Diagnosis of anaerobic infection is mainly based on clinical clues, By use of relevance examples discuss why this is so and describe the various clinical clues used to suggest presence of anaerobic bacteria
5. *Bacteroides* sp. are part of the normal human flora yet most often they have been implicated in Endocarditis.

Discuss

- i. Factors that could have resulted to the infection
  - ii. Virulence factors that promotes the infection
  - iii. How to test and confirm the infection
  - iv. How to control the infection
6. The anaerobic bacteria can be isolated and studied quite readily provided certain cardinal principles of anaerobic bacteriology are rigidly applied, Describe the important considerations in the cultivation of anaerobic bacteria