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University Examinations 2024/2025

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELLOR OF
SCIENCE IN ANIMAL HEALTH AND PRODUCTION

AAP 3205: BACTERIOLOGY AND MYCOLOGY 1

DATE: DECEMBER 2024

TIME: 2 HOURS

INSTRUCTIONS: Answer question *ONE* and any other *TWO* questions

QUESTION ONE (30 MARKS)

a) Explain the following terms:

- i. Differential media (2 marks)
- ii. Imperfect fungi (2 marks)
- iii. Tyndallization (2 marks)
- iv. Runyon group of Mycobacteria (2 marks)

b) Describe the structure and function of pili in bacteria (3 marks)

c) List THREE genera of Dermatophytes (3 marks)

d) Which streptococcal species are usually prevalent causes of mastitis in cows? (2 marks)

e) Name FOUR fungi that cause opportunistic mycosis (4 marks)

f) Explain how Louis Pasteur disapproved the controversy over the theory of abiogenesis. (3 marks)

g) Describe the cultural characteristics of *Brucella* sp.

h) Describe the colonial characteristics of *Mycoplasma* sp. (4 marks)

QUESTION TWO (20 MARKS)

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- a) Explain why Mycobacterium is known as "acid-fast bacilli. " (5 marks)
- b) Describe the biochemical reactions that are characteristic for the family *Enterobacteriaceae* (5 marks)
- c) Describe the morphology and laboratory diagnosis of *Staphylococcus aureus* (10 marks)

QUESTION THREE (20MARKS)

- a) Describe the sexual spores produced by fungi (10 marks)
- b) Describe the isolation and identification process of *E. coli* from a wound swab (10 marks)

QUESTION FOUR (20 MARKS)

Describe the following:

- a) Distinguishing characteristics of the genus Chlamydia (5 marks)
- b) Principal components of the Gram-positive cell wall (5 marks)
- c) Five major characteristics used in the classification of fungi (5 marks)
- d) Differences between the coagulase tube test and slide coagulase test and what they detect (5marks)