



ELIZADE UNIVERSITY, ILARA-MOKIN,  
ONDO STATE.

FACULTY: BASIC & APPLIED SCIENCES  
DEPARTMENT: BIOLOGICAL SCIENCES  
(MICROBIOLOGY UNIT)

FIRST SEMESTER EXAMINATION  
2019/2020 ACADEMIC SESSION

COURSE CODE: MCB 201

COURSE TITLE: GENERAL MICROBIOLOGY I

COURSE UNIT: 3 UNITS

DURATION: 2½ HOUR

HOD's SIGNATURE

NAME:.....

MAT. No:.....

INSTRUCTIONS:

Answer question ONE (1) and any other TWO (2) questions

1. a. Five ml of Bacterial Culture is added to 45 ml of sterile diluent. From this suspension, two serial, 1/100 dilutions are made, and 0.1 ml is plated onto Plate Count Agar from the last dilution. After incubation, 137 colonies are counted on the plate. C

i. What is the dilution factor at the last dilution?

ii. What is the plating factor?

iii. Calculate the CFU/mL of the original sample?

b. State 3 methods of isolating microorganisms.

20 Marks

2. a. Define the following terms with given examples

i. Selective culture media

ii. Differential media

iii. Enrichment media

iv. Transport media

v. Basal media

b. Discuss briefly with examples five (5) benefits of microorganisms.

20 Marks

3. i. Write short notes on what you know about Microorganisms

ii. Explain the differences between the Prokaryotic and the Eukaryotic organisms

iii. Name and state the function(s) of the different parts of a typical bacteria below

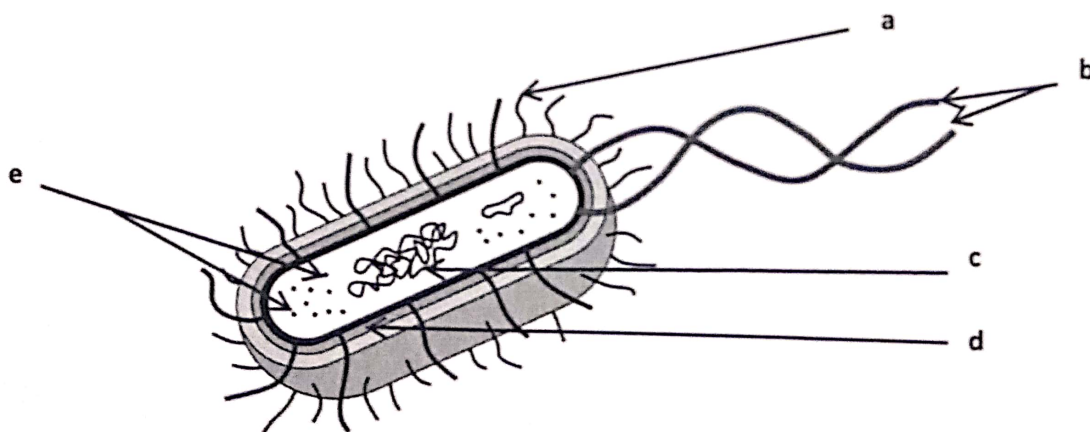


Fig 1. Diagram of a typical bacteria

20 Marks

4. a. Briefly explain the following terms:

- i. Obligate anaerobes, ii. Obligate aerobes, iii. Aero-tolerant anaerobes iv. Facultative anaerobes
- v. Microaerophiles

c. With the aid a diagram explain binary fission in bacteria

b. Briefly explain the 4 phases of the microbial growth curve

**20 Marks**

5. a. With the aid of a diagram, describe Louis Pasture's experiments that disprove the theory of Spontaneous generation.

b. Explain the contribution of Antonie van Leeuwenhoek's contribution to the development of Microbiology

c. Outline the Koch's postulates and the exceptions

**20 Marks**