



**ELIZADE UNIVERSITY,
ILARA-MOKIN,
ONDO STATE**

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

FIRST SEMESTER EXAMINATION

2016/2017 ACADEMIC SESSION

COURSE CODE: MCB 201

COURSE TITLE: GENERAL MICROBIOLOGY 1

DURATION: 2 HOURS

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HOD'S SIGNATURE

NAME:.....MAT. No:.....

Read the following instructions carefully.

Section A: Write the most appropriate answers for the following questions

1. The arrangement of flagella around the entire surface of bacterial cell is called _____ **5marks**
2. According to Koch's postulate, _____ disease is associated with a specific _____ **5marks**
3. The extremely toxic and reactive oxygen is called _____ **5marks**
4. Nutrient material prepared for microbial growth in the laboratory is called _____ **5marks**
5. All living things have a two part scientific names referred to as _____ nomenclature **5marks**

Section B

Answer **FIVE** questions in all, question **ONE** is compulsory. Each question carries **15marks**

1. Briefly explain the contributions of the following scientists to the development of microbiology
a) Louis Pasteur (b) Anthon Van Leeuwenhoek (c) Robert Koch (d) Robert Hook
2. a). Define endospore
b). With the aid of a diagram, describe the process of endospore formation in bacteria
3. a). When is a virus regarded as virion?
b). With the aid of a diagram, differentiate between a lytic and a lysogenic relation between viruses and their hosts
4. a). With suitable diagrammatical representation, differentiate between bacterial cell and animal cell.
b). List the **four** types of flagella arrangement found in bacteria.
5. a). Draw and label a bacterial growth curve
b). Describe what occurs at each phase of the bacterial growth curve
6. Briefly explain the following enumeration methods of microorganism
a). i. Direct cell counts

ii. Indirect cell counts

b). Highlight their differences, disadvantages and advantages

7. Briefly explain the following methods of sterilization

(i) Pasteurization (ii) Disinfection (iii) moist heat (iv) filtration (v) Radiation

(b) With the various sterilization methods available, how might you sterilize a heat-sensitive solution and why use the preferred option?

8. Briefly discuss the role of bacteria and fungi in:

I. Industry

II. Medicine

III. Management of environment and agriculture

IV. Human diseases