



ELIZADE UNIVERSITY,
ILARA-MOKIN,
ONDO STATE.

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

FIRST SEMESTER EXAMINATION

2015/2016 ACADEMIC SESSION

COURSE CODE: MCB409

COURSE TITLE: MEDICAL MICROBIOLOGY AND PUBLIC HEALTH

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HOD's SIGNATURE

DURATION: 2 Hrs

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

INSTRUCTIONS:

Answer all Questions

1. What is the term:

- (a) Presence, growth, and multiplication of bacteria at a specific body site with no noticeable symptoms.
- (b) Presence and movement of bacteria into a body area (e.g., tissue) with growth and multiplication + noticeable symptoms (e.g., fever, pus, inflammation).
- (c) Why is the normal microbiota important?
- (d) Briefly describe the microbiota prevent colonization by pathogens?
- (e) What are the 5 different "normal" microbiome areas in the body?

2.

- (a) True/False: There are less bacterial genes and cells in our body than human genes and cells?
- (b) The human microbiome project says that the human body has _____ microscopic life forms living in it.
- (c) Differentiate between pathogenicity and virulence.
- (d) Outline the main factors responsible for the pathogenicity of *Staphylococcus aureus* and *Streptococcus pyogenes*. Using a schematic diagram, clearly distinguish between the various groups in the Genus *Streptococcus*.

3. List out the steps in bacterial pathogenesis and indicate specific examples of 3 'classes' of virulence factors along with the corresponding pathogens. Describe in NOT MORE THAN 3 LINES, the relationship between quorum sensing and virulence, and the possible benefit of quorum sensing (in bacteria) to man.

4. A 6 year old male presented with a complaint of sore throat, fever, headache and swollen glands in his neck. Physical examination by the doctor indicated acute pharyngitis. As a microbiologist, if you suspect that the causative agent is a member of the Genus *Streptococcus*, state the causative agent and indicate the tests to confirm the identity of the bacterial agent.

5. Outline the sequence of events in the infective process of *Neisseria gonorrhoeae*. Mention the various categories of diseases caused by *S. aureus*.

6. Mention an infectious disease whose trend have been reported to decline or have been eliminated. Indicate five factors that lead to emerging infectious diseases.