2055
B. Voc. (Medical Lab Technology)
Fourth Semester
BMLT-405: Microbiology – I

Time allowed: 3 Hours   Max. Marks: 40

NOTE: *Attempt* *five* *questions in all, including Question No. I which is compulsory and
selecting one question from each Unit.*

x-x-x

I.   Answer the following:-

a) Define bacterial growth.

b) Differentiate between cocci and bacilli.

c) Who is regarded as the father of microbiology?

d) What is food poisoning?

e) Define meningitis.

f) What is a cough?

g) Differentiate between Gram-positive and Gram-negative bacteria.

h) Name any two antigens.   (8x1)

UNIT - I

II.   a) Briefly explain the bacterial growth curve.

b) What are anaerobic bacteria? Discuss their role in pathogenicity.   (2x4)

III. a) Differentiate between bacilli and cocci.

b) Provide a brief description of the bacterial cell structure.   (2x4)

UNIT - II

IV.   a) List the major bacterial classes responsible for respiratory tract infections.

b) Describe the laboratory diagnostic methods for sexually transmitted diseases
(STDs).   (2x4)

V.   a) Discuss the causative agent of tuberculosis and its symptoms.

b) Provide a brief overview of leprosy and its impact on human health. (2x4)

UNIT - III

VI.   a) Explain the significance of microbiology in disease study.

b) Describe the mode of action of an antibiotic against microorganisms. (2x4)

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VII.   a) Explain the general characteristics and structure of an antibody. List at least four types of antibodies and their functions.

b) Briefly describe the preventive measures taken to control the spread of infectious diseases in a population.   (2x4)

UNIT - IV

VIII.   a) Define laboratory safety. How should a blood specimen be handled for microbial analysis.

b) Write a short note on the culture environment for microorganisms.   (2x4)

IX.   a) Explain the concept of quality control and its clinical significance.

b) Describe the methods used for maintaining laboratory records of clinical samples.   (2x4)

x-x-x