

Time Allowed: 3 Hrs.

MM: 60

Section -A**Note: Multiple Choice questions. All questions are compulsory.****6x1=6**

Q.1 What is Microbiology?
a) Study of molecules that are visible to human eyes
b) Study of animals and their family
c) Study of organisms that are not visible to naked eyes
d) Study of microscope

Q.2 Which microorganism(s) among the following perform photosynthesis by utilizing light?
a) Cyanobacteria, Fungi and Viruses
b) Viruses
c) Cyanobacteria
d) Fungi

Q.3 Which part of the compound microscope helps in gathering and focusing light rays on the specimen to be viewed?
a) Condenser lens
b) Magnifying lens
c) Objective lens
d) Eyepiece lens

Q.4 Which of the following are produced by microorganisms?
a) Alcoholic beverages
b) Fermented dairy products
c) Breads
d) All of the mentioned

Q.5 What is the approximate size of the bacterial cell?
a) 1mm in diameter
b) 0.5 to 1.0 micrometer in diameter
c) 2mm in diameter
d) 2 micrometer in diameter

Q.6 The bacterium *Staphylococcus aureus* is which type of bacteria?
a) Mesophile
b) Mesophile and psychrophile
c) Psychrophile
d) Thermophile

Section-B**Note: Objective/Completion type questions. All questions are compulsory.****6x1=6**

Q.7 _____ is the most popular method to sterilize heat sensitive liquid and gases, without exposure to denaturing temperatures.

Q.8 Filtration is an excellent way to remove the microbial population from solution containing heat sensitive material. (TRUE/FALSE)

Q.9 Write full form of LT LT?

Q.10 A pure culture is usually derived from a mixed culture by transferring a small sample into new sterile growth medium. (True/ False)

Q.11 Write two examples of micro nutrients needed for microbial growth?

Q.12 Mesophiles can grow in the range of _____ temperature.

Section -C

Note: Short answer type Questions. Attempt any eight questions out of ten questions.

8x4= 32

Q.13 What is microscope?

Q.14 Define filtration and the types of filters used.

Q.15 Explain the various functions of ribosome?

Q.16 Define pour plating in detail?

Q.17 Explain the isolation techniques for pure culture?

Q.18 Define staining. Write the difference between dye and stains?

Q.19 Explain mode of reproduction of bacteria.

Q.20 Differentiate between mold and yeast?

Q.21 Describe in brief historical developments in microbiology?

Q.22 Write a short note on Asepsis?

Section-D

Note: Long answer type questions. Attempt any two questions out of three questions.

2x8=16

Q.23 Explain H Whittaker's five kingdom classification of living organism.

Q.24 Explain classification of bacteria in detail.

Q.25 Differentiate between prokaryotic and eukaryotic cell.