# GURUDAS COLLEGE <br> INTERNAL EXAMINATION 2020 <br> BSc (Semester IV) Under CBCS <br> MICROBIOLOGY (HONS) 

PAPER CC 9
TIME 2 Hr
FULL MARKS: 50
GROUP A
(25 MARKS)

## Q. 1 Answer any FIVE questions

a. What is terrestrial ecosystem? Explain with example
b. Draw a diagram of a typical Nitogen Cycle mentioning its all important part.
c. Draw a diagram of a typical waste management system and mention its important functional part.
d. What is the difference between SWM and LWM?
e. Write briefly about Anaerobic sludge digestion
f. What is Bioremediation? Explain it with a proper example.
g. State three important negative association between microbes with proper example.
h. What is the difference between symbiotic and asymbiotic Nitrogen fixation.
Q. 2 Answer any TWO questions
$2 \times 2.5=5$
a. What is solubilization and immobilization?
b. Explain briefly about ruminant microflora of COW.
c. Write a short note on Asymbiotic Nitrogen Fixation.
d. What is biosurfactants? Explain with example.

GROUP B
(15 MARKS)
Q. 3 Answer any THREE questions
a. Diagrammatically represent the process of BOD measurement of waste.
b. What is Rhizosphere, plant exudates and Rhizosphere Effect?
c. How solid agar medium is used to detect amylase producer in soil? Explain with diagram.
d. Draw a diagram of MPN test and mention its important part.
e. Why isolation of fungi need a temperature of $28^{*} \mathrm{C}$ ? What medium must be used to isolate yeast and mould from natural source and why?

GROUP C
(10 MARKS)
Q. 4 Answer any FOUR
$4 \times 2.5=10$
a. What is the difference between BOD and COD?
b. What is nematophagus fungi? Give its importance.
c. What is the difference between mutualism and commensalism? Example.
d. What is composting? How it is different from Humus?
e. What are different types of soil microorganisms found in nature?
f. Why air is not a suitable medium for growth of bacteria justify with example.

