

B.Sc. (With Credits)-Regular-Semester 2012 Sem II
2SMic-T2-Microbiology-II : Paper-II
(Microbial Taxonomy, Ecology and Diversity)

P. Pages : 2

Time : Three Hours



GUG/W/16/5586

Max. Marks : 50

- Notes :
1. All questions are compulsory.
 2. Each question carry equal marks.
 3. Draw diagrams wherever necessary.

1. Describe the genetic relatedness method of bacterial classification. **10**

OR

Discuss general characteristics of Archaebacteria and cyanobacteria.

2. Describe aerobic and anaerobic method of composting in detail. **10**

OR

Explain biofertilizer and their types with its applications.

3. a) What is binomial nomenclature system ? **2½**

b) Write short note on Rickettsia. **2½**

c) Explain antagonism. **2½**

d) Discuss biomagnification with example. **2½**

OR

e) Discuss Whittaker's five kingdom system of classification. **2½**

f) Write short notes on protozoa. **2½**

g) What are the functions of Humus ? **2½**

h) Discuss the concept of superbug. **2½**

4. a) Give the general principles of bacterial taxonomy. **2½**

b) Write down the economical importance of Algae. **2½**

c) Write short notes on Mycorrhizae. **2½**

d) Discuss the phenomenon of recalcitrance with example. **2½**

OR

- e) Describe the concept of three domain system. 2½
- f) Give an economic importance of cyanobacteria. 2½
- g) Explain symbiosis with example. 2½
- h) Give the role of r-DNA technology in nitrogen fixation. 2½

5. Answer any ten.

- a) Define Binomial nomenclature. 1
- b) What is numerical taxonomy ? 1
- c) What is five kingdom system ? 1
- d) What are PLT organisms. 1
- e) Give two examples of Actinomycetes. 1
- f) Give the use of cyanobacteria. 1
- g) Define antagonism. 1
- h) What is mycorrhizae ? Give example. 1
- i) Define Humus and give its significance. 1
- j) Give two examples of nitrogen fixing bacteria. 1
- k) What is xenobiotic compound ? 1
- l) Which organisms is known as superbug ? 1
