

2008**3rd Semester Examination****MICROBIOLOGY****PAPER—XV***Full Marks : 40**Time : 2 Hours*

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer any two questions from each group.

Group — A**[Marks : 20]**

1. (a) Distinguish between vermicompost and vermiculture. Stage the utility of vermicompost.
(b) Briefly state the role of Mycorrhiza in nutrient transformation.
(2+3)+5

2. (a) What is biopesticides ?
(b) Briefly describe the molecular mechanism of Bt toxin.
(c) Differentiate between *nif* and *NIF*⁺
3+5+2

(Turn Over)

3. (a) What is biofertilizer?
(b) How does it differ from super digest compost.
(c) Briefly describe with flow diagram the mass production of *Rhizobium*.
(d) What is pelleting? How it is achieved?

1+1+6+(1+1)

Group — B

[Marks : 20]

4. Write notes on (any four) : 2.5×4
- (a) Host specificity Pathogens
 - (b) Rice fungro virus
 - (c) Horizontal resistance
 - (d) Toxin as a weapon of Pathogen.
 - (e) *Xanthomonas* disease.
5. (a) Differentiate between Pathogenecity and Pathogenesis
- (b) Briefly describe the various stages in the development of disease. 3+7
6. (a) State how plants protect themselves against pathogen.
- (b) Write a notes on *Alternia* mentioning its structure and disease cycle. 6+4
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