

## M.Phil. Science Examination

## Paper-III : Biotechnology

May-2017

Time : 3 Hours]

[Max. Marks : 70

## BT: 603 Research Papers

Q : 1 Write the biotechnological applications of microbes from Western Ghats of India as discussed by Nampoothiri et al. 14

OR

Describe the effect of trees on litter and soil microorganisms studied by Urbanova et al.

Q : 2 Describe the plant growth-promoting activities of Rhizobacterial strains isolated from medicinal and aromatic plants studied by Malleswari and Bagyanarayana. 14

OR

Discuss the selection of plant growth-promoting Rhizobacteria and their effects on growth of rice seedlings reported by Tan et al.

Q : 3 Describe the comparative study of rhizosperic bacterial communities of *Cajanus cajan* and chemical fertilizers studied by Gupta et al. 14

OR

Discuss the effect of application of liquid residues on the growth of tomato plant studied by Zhen Zhu et al.

Q : 4 Explain the fungal diversity from six medicinal plants of Karnataka described by Uzma et al. 14

OR

Write the evaluation of hydrolytic enzyme activities of endophytes from some indigenous medicinal plants reported by Jalgaonwala and Mahajan.

Q : 5 Attempt **any two** of the following. 14

- Endophytic *Ralstonia* sp. from A. Vera gel and its antimicrobial activity
  - Field experiment at Yanco Agricultural Research Institute
  - Phosphate and Potassium solubilization ability (Tan et al.)
  - Major microbial species of four National parks of Gujarat
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