



**RAJARATAUNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

B.Sc. General Degree in Applied Sciences

Third Year– Semester I Examination– Oct/Nov 2015

BOT 3106– BIOLOGICAL NITROGEN FIXATION AND ITS APPLICATIONS

Time: 1 ½ hours

Answer **three (3)** questions

1. Giving examples compare and contrast symbiotic nitrogen fixation and root rhizosphere associative nitrogen fixation.
2. “Nitrogenase enzyme activity is generally inhibited by oxygen”. Discuss the above statement, appraising various mechanisms adopted by nitrogen fixing organisms and systems that protect nitrogenase from oxygen inhibition.
3. Explain the process of initiation of root nodules and the establishment of functional symbiosis between rhizobia and legume root.
4. Giving appropriate examples discuss use of diazotrophs in ecological agricultural practices.