

The Assam Royal Global University, Guwahati
Royal School of Bioscience
M.Sc. Biotechnology 1st Semester
Semester End Examination, December 2018
Bioresource and Environmental Biotechnology
BTC154D101

Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks

Section – A

- Q.1. Attempt all questions. (Maximum word limit 50) 2 x 8**
- What is Bioremediation?
 - Why are biomarkers used?
 - Name the type of industry responsible for water pollution?
 - What are the role of forests?
 - Give two example of aerobic bacteria?
 - What are anaerobic microbes?
 - What type of organisms can be found in the rhizosphere?
 - What is municipal waste water?

Section – B

- Q.2. Define Phytoremediation? Mention the different types of phytoremediation? 14**
- OR**
- What are the different factors which affect bioremediation? Write the advantages and disadvantages of bioremediation?
- Q.3. What is biodegradation? How is biodegradation of hydrocarbons carried out? 7+7**
- OR**
- Explain the aerobic and anaerobic process of digestion? 14
- Q.4. What is waste water? How can we treat waste water using aerobic and anaerobic methods? 14**
- OR**
- What are the molecular techniques in waste water treatment? Mention the limitations.
- Q.5. What are bioresources? Explain biotic and abiotic bioresources? 6+6**
- OR**
- Mention the ecological significance of forest resources? 12