

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
B.Sc., Winter 2017-18 Examination

Semester: 5**Subject Code: 11102303****Subject Name: Environmental Biotechnology****Date: 26/12/2017****Time: 2:00 pm to 4:30 pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A)** Discuss the various Plant test assays and animal test assays. (08)
- Q.1. B) Answer the following questions (Any two)**
- (a) Short note: Global warming and its effects. (04)
- (b) What is ecoenergetics? State the various types of ecological pyramids with figures. (04)
- (c) Short note: Biosensors in pollution abatement. (04)
- Q.2. A) Answer the following questions.**
- (a) Define: 1. EIA (04)
2. Chemotrophs
- (b) Short note: Kyoto Protocol. (04)
- Q.2. B) Answer the following questions (Any two)**
- (a) What are the criteria for bio- monitoring of pollution? (03)
- (b) Differentiate between food chain and food web. (03)
- (c) Short note: Sulfur cycle. (03)
- Q.3. A) Explain secondary treatment of waste water.** (08)
- Q.3. B) Answer the following questions (Any two)**
- (a) Short note: Biomagnification. (04)
- (b) Short note: Vermitechnology. (04)
- (c) Short note: Steps in petroleum degradation. (04)
- Q.4. A) Answer the following questions.**
- (a) Draw the labeled diagrams for: 1. Bioscrubbers (04)
2. Biobeds.
- (b) Short note: Biosorption. (04)
- Q.4. B) Answer the following questions (Any two)**
- (a) Short note: Biosafety for GEMs. (03)
- (b) What is a rotatory bioreactor? Explain with a figure. (03)
- (c) What are xenobiotics? Explain with examples. (03)