

Philadelphia University

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Faculty of Science

Department of Biotechnology &
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Course Name: Environmental Biotechnology
Course Number: 240365

Q.1 Answer one question of the following.

- A. Talk about landfill sites, its construction, benefits and changes in gases in landfill sites over a number of years.**
- B. In sewage treatment, oxygen supply is required to avoid oxygen limitation, talk about the aeration methods that are being used in the various sewage treatment plants.**

Q.2. Answer three of the following question.

- A. Fluidised bed is a modification to existing processes of sewage treatment, what are the basis of such method.**
- B. What is Poly (3-hydroxybutyrate) (PHB) from microbial point of view?**
- C. The disposal of excess sludge.**
- D. What are the main functions of waste treatment systems?**

Q.3 Define two of the following

- a. Nitrification**
- b. Denitrification**
- c. Sequencing batch reactor (SBR)**
- d. Hydraulic retention time**

Q.4 Define two of the following

- a. Windrow system**
- b. CO₂ release dip in composting**
- c. Phytase and its effect(s)**
- d. Semiochemicals**

Good Luck