

**B.TECH FOOD TECHNOLOGY**  
**VII Semester Examination 2019**  
**Course Code- BF7C-704**

**Course Title - Food waste management and by-product utilization**

**TIME: 3 hours**

**Max. Marks: 70**

**Note: 1. It is compulsory to answer all the questions of Section-A.**  
**2. Answer any four questions in Section- B.**

ROLL NO-

B.Tech

7th Sem.

2019

**Section-A (5\*6=30)**

**Q1. Define the following:**

**(10\*2=20M)**

- (a) Food Waste
- (b) Food by-product
- (c) COD
- (d) Disinfection
- (e) Incineration
- (f) BOD
- (g) Flocculation
- (h) Landfills
- (i) Lagoons
- (j) Composting

**Q2. Write a short note on the following**

**(2\*3=6M)**

- (a) UASB?
- (b) Activated Sludge Process?

**Q3. Briefly explain the process of vermicomposting?**

**(4M)**

**Section- B (4\*10=40)**

**Q1. (a) Define biogas?**

**(1M)**

- (b) Enlist the constituents of biogas?
- (c) Enlist the components of a biogas plant?
- (d) Write a short note on working of a biogas plant?

**(2M)**

**(2M)**

**(5M)**

**Q2. Write short notes on any two of the following:**

**(2\*5=10M)**

- (a) Waste management hierarchy (3 R's with diagram of a pyramid).
- (b) Characterization of food industrial waste.
- (c) Byproduct utilization from dairy industry.
- (d) Diagrammatic representation of anaerobic digestion of sewage.

**Q3. What are solid wastes? Give in detail the processes used for solid waste disposal?**

**(10M)**

**Q4. Write short notes on the following (any 2):**

**(2\*5=10M)**

- (a) Parameters of effluent
- (b) Oxidation ponds
- (c) Trickling filters
- (d) Compost making

**Q5. Enlist the four main steps of waste water treatment. Elaborate in detail how the primary treatment is performed for treating waste water?**

**(10M)**

**Q6. Explain in detail the Utilization of byproducts and waste materials from meat, poultry and fish processing industries?**

**(10M)**