Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD (now MoE)
Re-accredited with an 'A++' Grade by NAAC CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – August, 2025

Semester V

Class: III UG **Max. marks: 60**
Major: Biochemistry and Biotechnology **Time: 2 hours**

23BBTDE1 – Environmental Biotechnology

Course Outcomes:

CO1:Understand the basic concepts of ecosystem and resources and types of waste management.
CO2:Learn the importance of bioremediation and biodegradation.
CO3:Illustrate the role of microbes as biofertilizers.
CO4: Discuss the importance of biopesticides
CO5:Relate and demonstrate the essence of waste water management.

Part – A **6 x1 = 6**

Choose the correct answer

1. Which of the following is a renewable resource? **CO1K3**
   a. Coal b. Petroleum c. Natural gas d. Solar energy
2. Non-renewable resources are those that: **CO1K2**
   a. Can be replenished quickly b. Are unlimited in supply
   c. Are finite and can be depleted d. Are environmentally friendly
3. _____ is a process of degrading the debris by using microorganism. **CO2K1**
   a. Bioremediation b. Xenobiotics c. Probiotics d. Bioaccumulation
4. Cellulose is an example of _____ biomass. **CO2K1**
   a. Plant b. Animal c. Microbial d. Fungal
5. Which of the following is the primary process involved in biomining? **CO2K3**
   a. Smelting b. Leaching c. Combustion d. Electrolysis
6. What is the primary function of biofertilizers? **CO3 K2**
   a. To kill pests b. To enrich the soil with nutrients
   c. To increase soil pH d. To control weeds

Part B **3 x 6 = 18**

Answer ALL questions

Answer should not exceed 400 words or two pages

7.a. Give an account of renewable resources**.** **CO1K2**

Or

7.b.Explain about any two fossil fuels. **CO1K2**

8.a. Comment on the degradation of lignin using microbes. **CO2K2**

Or

8.b. Write a note on phyto-remediation. **CO2K3**

9.a. Write a note on nitrogen and phosphate fertilizers. **CO3K1**

Or

9.b. Comment on Modern fuels and their impact on the environment. **CO1 K3**

Part C **3 x 12= 36**

Answer ALL questions

Answer should not exceed 800 words or four pages

10.a. What is biomimicking? How is it useful in energy conservation? **CO1K2**

Or

10.b. Explain about solar energy, importance and its applications. **CO1K3**

11.a. Comment on bioleaching. **CO2K3**

Or

11.b. Elaborate on bioremediation and its types. **CO2 K3**

12.a. Illustrate the ethanol production from fermentable substrates. **CO1 K3**

Or

12.b.Explain the role of symbiotic and asymbiotic nitrogen fixing bacteria in the enrichment of soil. **CO3K2**