Final Assessment Test(FAT) - Apr/May 2025

Programme	B.Tech.	Semester	Winter Semester 2024-25
Course Code	BCLE215L	Faculty Name	Prof. Vasugi V
Course Title	Waste Management	Slot	G1+TG1
		Class Nbr	CH2024250500675
Time	3 hours	Max. Marks	100

Instructions To Candidates
- Write only your registration number in the designated box on the question paper. Writing anything elsewhere on the question paper will be considered a violation.

Course Outcomes
CO1: Understand the potential impact of waste management
CO2: Develop the environmental, social and economic framework towards sustainable development
CO3: Apply sustainable development tools in regulating the waste management
CO4: Implement life cycle analysis in waste management
CO5: Involve in the concepts of closed loop approach and circular economy

Answer any 5 Questions (5 × 20 Marks)

01. As an ambassador of modern waste management practices, illustrate the followings (4*5=20 Marks)
    (i) New waste management paradigm with a suitable sketch
    (ii) Challenges related to waste management in India
    (iii) Recent Government initiatives to waste management
    (iv) Best practices followed in India towards waste management

    [20] (CO1/K3)

02. a. Describe the marine pollution and carbon dioxide capture and utilization based on the Guest Lecture arranged to you. (7 Marks)
    b. Explain the focus of the methodology named "Cradle to Grave". (7 Marks)
    c. Mention any six practices you would like to adopt in your day to day life as an Environmental cautious person w.r.t waste management. (6 Marks)

    [20] (CO2/K2)

03. As a representative of an atomic power station, you are invited to address the followings (4*5=20 Marks)
    (i) Characteristics of Radioactive waste,
    (ii) Harmful effects of radioactive waste
    (iii) mandates in managing the radioactive waste
    (iv) Recent management practices adopted as a part of their awareness week program to the public residing nearby the power station. Mention the content you would like to deliver.

    [20] (CO3/K4)

04. Do you feel that the waste water should be treated before it reaches the natural water sources? Then, illustrate the waste water management in terms of (4*5=20 Marks)
    (i) Sources of waste water,
    (ii) need for its management,
    (iii) Treatment and Techniques involved,
    (iv) Sludge disposal methods.

    [20] (CO4/K3)

05. The municipality of Tambaram wants to conduct an awareness program on the following to its trainees who are responsible in handling the waste. How would you help them in creating the awareness? (5*4=20)
    (i) Metal waste
    (ii) Sustainable manufacturing practices
    (iii) Recovery of value added products
    (iv) Reuse of waste
    (v) Recycling non-biodegradable waste

    [20] (CO5/K4)

06. Elaborate the followings. (4*5=20 Marks)
    (i) Transition from Linear to Circular Economy
    (ii) Circular Economy Policies towards Sustainable Development
    (iii) Closed loop approach towards Circular economy
    (iv) Zero Liquid Discharge –its potential and challenges

[20] (CO5/K5)

BL-Bloom's Taxonomy Levels - (K1-Remembering,K2-Understanding,K3-Applying,K4-Analysing,K5-Evaluating,K6-Creating)

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