

CSWATT/July/2025

**ASSIGNMENT BOOKLET**

**CERTIFICATE IN SOLID WASTE TREATMENT TECHNIQUES  
(CSWATT)**

**Last date for submission**

**31<sup>st</sup> October**



**School of Engineering and Technology  
Indira Gandhi National Open University  
Maidan Garhi, New Delhi - 110068**

Dear Learners,

As you are aware, a weight-age of 30% has been earmarked for continuous evaluation which would consist of **Tutor Marked Assignment** for each course, BWA001, BWA002, BWA003 and BWA004 of this program. Learners are required to score minimum 40 marks out of 100 marks in assignment of each course. Submit assignment response to **Programme Coordinator (CSWATT), Block C, School of Engineering & Technology, Indira Gandhi National Open University, Maidan Garhi, New Delhi - 110068**

### **INSTRUCTIONS FOR SUBMITTING ASSIGNMENTS**

Before attempting the assignment, please read the following instructions carefully:

- 1) On top of the first page of TMA answer sheet, please write the details exactly in the following format:

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	<b>Enrolment no:</b>
	<b>Name:</b>
	<b>Address:</b>
<b>Course code:</b>	
<b>Course title:</b>	
<b>Assignment code:</b>	
<b>Study centre:</b>	<b>Date:</b>

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**Please follow the above format to facilitate evaluation and to avoid delay.**

- 2) Use full size paper for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Answers should be precise.
- 5) While solving problems, clearly indicate the question number along with the part being solved, if any. Recheck your work before submitting it.

**Assignments received after the due date shall not be accepted. We strongly feel that learner should retain a copy of assignment response to avoid any unforeseen situation and append, if possible.**

**Course Code:** BWA001

**Title of the Course:** Solid Wastes & Regulatory Framework

**Assignment Code:** BWA001/TMA/July/2025

**Maximum Marks:** 100

**Note: All questions are compulsory. All questions carry equal marks.**

1. What do you understand by hazardous waste? Discuss the characteristics of hazardous wastes?
2. Discuss the activities involved in the management of solid waste from the point of origin to final disposal.
3. What are the principles of integrated solid waste management? Explain.
4. Using following data evaluate the quantity of solid waste generated rate per week for a city residential area consists of 5000 homes. Given data are collected from local transfer station and observation period was one week. Assume approximately 2 adults and 1 child per home (2.5 people per home):

No. of vehicle	No. of strip	Volume (m <sup>3</sup> )	Specific weight (kg/m <sup>3</sup> )
I	15	10	280
II	20	8	210
III	25	12	320

5. What are the effects of solid waste pollution on the human health and environment?
6. Explain decentralized solid waste management in detail?
7. Using the data in Table given below, estimate the 'as discarded' density of 1000kg of typical residential waste.

Component	Percent by mass
Food Waste	15
Paper	45
Cardboard	15
Plastics	10
Wood	5
Tin Cans	10

8. Explain the significance of proximate and ultimate analysis of waste.
9. Discuss the authorizations are required for consent to establish, consent to operate and renewal under the hazardous waste management rules.
10. Discuss the authorizations required under the Plastic Waste Management rules.