CSWATT/Jan/2026

ASSIGNMENTBOOKLET

CERTIFICATE IN SOLID WASTES TREATMENT TECHNIQUES (CSWATT)

Lastdateforsubmission

31th March

SchoolofEngineeringandTechnology
IndiraGandhiNationalOpenUniversity
MaidanGarhi,NewDelhi-110068

DearLearners,

As you areaware, a weightage of 30%hasbeenearmarkedforcontinuous evaluationwhichwouldconsistof**Tutor MarkedAssignment**foreach course,BWA-001,BWA-002,BWA-003 andBWA-004 ofthisprogram.Learners are required to scoreminimum40marksoutof100marksin assignment of each course.Submitassignment response to**Programme Coordinator (CSWATT), BlockC, SchoolofEngineering&Technology,IndiraGandhiNationalOpenUniversity,MaidanGarhi,New Delhi-110068**

Afeedbackformisenclosedwiththisassignment.Pleasecompleteitaftersolvingthisassignmenta nd senditttotheCourseCoordinator(CSWATT)ontheaddressspecifiedonthefeedbackform.

INSTRUCTIONSFORSUBMITTINGASSIGNMENTS

Beforeattemptingtheassignment,pleasereadthefollowinginstructionscarefully:

1)OntopofthefirstpageofTMAanswersheet,pleasewritethedetailsexactlyinthefollowing format:

Enrolmentno:
Name:
Address:

Coursecode:
Coursetitle:
Assignmentcode: **Assignment no.:**
Study Centre: **Date:**

Pleasefollowtheaboveformattofacilitateevaluationand toavoiddelay.

2)Usefullsizepaperforwritingyouranswers.

3)Leave4cmmarginontheleft,topandbottomofyouranswersheet.

4)Answersshouldbeprecise.

5) Whilesolvingproblems,clearlyindicatethequestionnumberalongwiththepartbeingsolved, if any.Recheckyourworkbeforesubmittingit.

Answersheetsreceivedaftertheduedateshallnotbeaccepted.Westronglyfeelthatlearners houldretainacopyofassignmentresponsetoavoidanyunforeseen situationandappend,ifpossible.

WEWISHGOODLUCK!

Course Code: BWA-001
Title of the Course: Solid Wastes & Regulatory Framework
Assignment Code:BWA-001/TMA/**Jan/2026**
Maximum Marks: 100

Note: Allquestionsarecompulsory.Allquestionscarryequalmarks.

1. What do you understand by construction and demolition (C&D) waste? Explain in brief.
2. What do you understand by hazardous waste? What are the characteristics of hazardous wastes?
3. What are the principles of integrated solid waste management?
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^3)	Specific weight (kg/m^3)
I	15	10	280
II	20	8	210
III	25	12	320

5. What are the health effects of solid waste pollution?
6. What are the Reasons for change in composition of waste?
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.