

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP/2024)

CLASS: BTECH
BRANCH: CHEMICAL

SEMESTER : VI
SESSION : SP/2025

SUBJECT: CL373 ENVIRONMENT & PLASTICS

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

		CO	BL
Q.1(a)	Identify different sources of plastic materials.	[2] I	VI
Q.1(b)	Describe three most important merits of plastic materials over other traditional materials.	[3] I	V
Q.2(a)	Discuss the possible adverse impact of waste plastics on environment.	[2] II	III
Q.2(b)	Mention the recycling codes of HDPE, PS, PP, and LDPE.	[3] II	V
Q.3(a)	Discuss the thermos-oxidative degradation during reprocessing of waste plastic.	[2] III	V
Q.3(b)	Explain the different precautionary measures to suppress the thermos-oxidative degradation of plastics.	[3] IV	V
Q.4(a)	Identify different non-polymeric contaminants found in the waste plastics.	[2] III	III
Q.4(b)	Discuss their effects on the properties of the recycled plastic materials.	[3] III	VI
Q.5(a)	Discuss the strategies taken to segregate different types of waste plastics in the industries.	[2] III	II
Q.5(b)	Justify the sorting of waste plastics before melt processing.	[3] IV	V

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