

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2025
(Third Semester)

Branch - **BIOTECHNOLOGY**

MAJOR ELECTIVE COURSE- II: WASTE MANAGEMENT

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the below is not an idea behind solid waste management? a). Control of waste generation b). Storage and collection c). Disposal d). Stop waste generation	K1	CO1
	2	Which of the following methods is better for the solid waste problem? a). Recycling b). Landfilling c). Both a and b d). None of the above	K2	CO1
2	3	Which of the following is a biological method of disposal of municipal solid waste? a). Land fills b). Shredding c). Pulverization d). Composting	K1	CO2
	4	The density of ash produced in the municipal solid waste is a). 100 kg/m ³ b). 450 kg/m ³ c). 700 kg/m ³ d). 1000 kg/m ³	K2	CO2
3	5	Which of the following is not a serious hazardous characteristic of the waste? a). Toxicity b). Ignitability c). Corrosiveness d). Degradability	K1	CO3
	6	What are the ways in which most of radio activeness is removed? a). Infusing them with other metal b). Neutralizing them by diluting in chemical solutions c). Storing them d). Segregating them into small packs	K2	CO3
4	7	How are electronic items dangerous? a). They degrade over time, releasing cancer-causing chemicals into the air b). Lead and mercury in components can cause metabolic changes in users c). They leach toxic metals in landfills and into ground water d). They create electromagnetic fields that interfere with animal reproduction	K1	CO4
	8	Which toxic compound is not found in e-waste? a). Mercury b). Cadmium c). Neon d). Lead	K2	CO4
5	9	The first of the major environmental protection act to be promulgated in India was a). Water Act b). Air Act c). Environmental Act d). Noise Pollution Rule	K1	CO5
	10	The Government of India enacted the Environment Protection Act of 1986 under Article Of the Constitution of India. a). 253 b). 249 c). 301 d). 251	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Figure out the factors affecting the generation of solid waste.	K3	CO1
	(OR)			
	11.b.	Demonstrate the methods used to measure solid waste in brief.		
2	12.a.	Demonstrate the thermal treatment incineration method and its disadvantages.	K3	CO2
	(OR)			
	12.b.	Illustrate the process of Biomethanation.		
3	13.a.	Explain the classification of hazardous waste.	K4	CO3
	(OR)			
	13.b.	Analyze the methods used for the storage of hazardous waste.		
4	14.a.	List out the methods used for disposal of E waste.	K4	CO4
	(OR)			
	14.b.	Outline the rules for biomedical waste management.		
5	15.a.	Appraise the impact of CSR activity in environmental protection.	K5	CO5
	(OR)			
	15.b.	Explain recycled plastic manufacture and usage rule 1999.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explore the transformation of municipal solid waste in detail.	K4	CO1
2	17	Illustrate gasification of municipal solid waste in detail.	K4	CO2
3	18	Evaluate the methods used in disposal of biomedical waste in detail.	K4	CO3
4	19	Explain the rules for municipal solid waste management in detail.	K5	CO4
5	20	Summarize the environment protection act 1986.	K5	CO5