

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION DECEMBER 2025
(Second Semester)**

Branch - ENVIRONMENTAL SCIENCE

INTEGRATED WASTE MANAGEMENT

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Question No.	Question	K Level	CO
1	Which one of them is trash? a) Sewage water b) Hydrogen sulphide c) Plastics d) Factory waste	K1	CO1
2	Identify the correct order a) Source reduction, Segregation, Transportation b) Transportation, Segregation, Source reduction c) Transportation, Source reduction, Segregation d) Source reduction, Transportation, Segregation	K2	CO1
3	Estimation of nitrogen content in wastes comes under _____. a) Biological analysis b) Physical analysis c) Waste quantification d) Ultimate analysis	K1	CO2
4	What materials can be recovered from solid waste? a) Metals b) Plastics c) Paper d) All of the above	K2	CO2
5	The term 'cradle-to-grave' is used to refer a) Vermicomposting b) Life cycle assessment c) Landfill management d) Refurbishing	K1	CO3
6	CER stands for..... a) Corporate Establishment Responsibility b) Community Environmental Responsibility c) Corporate Environmental Responsibility d) Community Establishment Responsibility	K2	CO3
7	A waste is considered hazardous when it is a) Sharp b) Ignitable c) Putrefied d) Rusted	K1	CO4
8	The biological method of waste treatment involves a) Bioremediation b) Thermal desorption c) Precipitation d) Oxidation /Reduction	K2	CO4
9	What are fly ashes? a) Burned plastic wastes b) Burned fine industrial waste c) Aerosols d) Burned paper waste	K1	CO5
10	The Intermediate-Level Waste in nuclear plants are a) Converted into solid for disposal b) Converted into vapour for disposal c) Converted into liquid for disposal d) Disposed as such	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

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

Question No.	Question	K Level	CO
11.a.	Summarise the steps involved in the solid waste management process from source to disposal.	K2	CO1
	(OR)		
11.b.	Explain the factors affecting the waste generation rate.	K3	CO2
12.a.	Elaborate on the biological aspects of waste characterization.		
	(OR)	K3	CO3
12.b.	Elaborate on the necessity of the waste characterization process.		
13.a.	Provide an account on the scope of the life cycle assessment.	K3	CO4
	(OR)		
13.b.	Identify the benefits involved in the energy generation from solid wastes.	K2	CO5
14.a.	What are hazardous wastes? How are they disposed of?		
	(OR)	K3	CO5
14.b.	Elaborate on the characteristics of hazardous wastes.		
15.a.	Analyse e-waste as solid waste and recovery products.	K3	CO5
	(OR)		
15.b.	Give an account on the concept of social entrepreneurship.		

SECTION - C (30 Marks)

Answer ANY THREE questions

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

Question No.	Question	K Level	CO
16.	Write an essay on 'The generation and management of solid waste in India'.	K4	CO1
17.	Simplify the process for solid waste processing and material recovery.	K3	CO2
18.	How long has the 4'R concept succeeded in terms of plastic waste? Analyse.	K4	CO3
19.	Elaborate on the treatment process of hazardous waste.	K2	CO4
20.	Elaborate on the adverse effects on construction and demolition waste and the regulations governing.	K3	CO5

Z-Z-Z

END