CMR INSTITUTE OF TECHNOLOGY

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Internal Assesment Test - I

Sub:	SOLID WASTE MANAGEMENT Cod					le:	15CV65	CV651				
Date:	14/03/2018	Duration:	90 mins	Max Marks:	50	Sem:	VI	Bra	nch:	CIVIL	ÍVIL	
	Answer Any FIVE FULL Questions											
							OBE					
									Mark	CO	RBT	
1	Explain different se	ources and typ	pes of mu	nicipal solid v	vaste.				[10]	CO1	L2	
	composting.						[10]	CO3	L2			
Explain with the aid of neat sketches, hauled container system and stationary container system					[10]	CO2	L2					
	Determine landfill area required for a municipality with a population 50000 given that.					, [10]	CO3	L2				
	i) Solid waste generation = 360gms/person/day.											
	ii) Con	npacted densi	ty of land	fill = 504 kg/m	1^3							
	iii) Ave	erage depth of	compact	ed solid waste	=3m	l						

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container system

USN



[10]

CO2

CO₃

L2

L2

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Date:	14/ 03 / 2018	Duration:	90 mins	Max Marks:	50	Sem:	VI	Branch: Cl		CIVIL	
Answer Any FIVE FULL Questions											
						3.6.1	OBE				
						Marks	CO	RBT			
1 Explain different sources and types of municipal solid waste.						[10]	CO1	L2			
	Describe different d composting.	lesign comp	onents w	hich are to be	e consid	dered f	or aer	obic	[10]	CO3	L2

Determine landfill area required for a municipality with a population 50000, [10] given that.

Explain with the aid of neat sketches, hauled container system and stationary

- i) Solid waste generation = 360gms/person/day.
- ii) Compacted density of landfill = 504kg/m³
- iii) Average depth of compacted solid waste = 3m

5	An area consisting of 4000 houses contributes solid waste. Estimate the solid waste generation rate, if the observation is a local transfer station and period of generation is one week. The waste is carried out in two types of vehicles viz, compactor trucks and flat bed trucks. Also estimate the unit waste generation rate. Number of compactor truck load – 12; No. of flat bed truck load – 10 Volume of each compactor truck – 16m3; Volume of each flat bed truck – 2.5m3 Density of waste of compactor truck – 300 kg/m3; Density of waste of flat bed truck = 150 kg/m3; Number of persons in each house – 5	[10]	CO2	L2
6	Explain the various factors to be considered in the selection of a site for a sanitary land fill	[10]	CO3	L2

CI CCI

5	An area consisting of 4000 houses contributes solid waste. Estimate the solid waste generation rate, if the observation is a local transfer station and period of generation is one week. The waste is carried out in two types of vehicles viz, compactor trucks and flat bed trucks. Also estimate the unit waste generation rate. Number of compactor truck load – 12; Number of flat bed truck load – 10 Volume of each compactor truck – 16m3; Volume of each flat bed truck – 2.5m3 Density of waste of compactor truck – 300 kg/m3; Density of waste of flat bed truck = 150 kg/m3; Number of persons in each house – 5	[10]	CO2	L2
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