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**Question Paper Code: 49117** 

## B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

## Elective

## Civil Engineering

## 14UCE917 – MUNICIPAL SOLID WASTE MANAGEMENT

		(Regulation 2014)						
	Duration: 1.15 hrs	Maximum: 30 Marks						
	PAR	$RTA - (6 \times 1 = 6 \text{ Marks})$						
	(Answer any	y six of the following questions)						
1.	are those defined as wastes of industrial, institutional or consumer origin that ar							
	potentially dangerous either immediately or over a period of time to human beings and the							
	environment.							
	(a) Biodegradable wastes	(b) Non-biodegradable wastes						
	(c) Hazardous wastes	(d) Residential waste						
2.	2encompasses activities in which materials are identified as no longer bein							
	Value and are either thrown away or gathered together for disposal.							

- (a) Solid waste management (b) Waste generation
- (c) Waste storage (d) Waste processing
- 3. \_\_\_\_\_refers to the activities associated with the handling of solid wastes until they Are placed in the containers used for their storage before collection.
  - (a) On-site handling (b) On-site storage
  - (c) On-site collection (d) None of the above
- 4. The approximate time taken for the paper to degrade is
  - (a) 5 to 7 days
- (b) One year
- (c) Ten years
- (d) 5 to 30 days

5.	The collection systems in which the containers used for the storage of wastes remain at the point of waste generation except when moved for collection is known as						
	(a) Hauled- container system	n (b)	Stationary contain	ner system			
	(c) Hauled- container system	ns (d)	) All the above				
6.	Communal collection of solid w	aste in rural areas is	generally done by				
	(a) Community Rollers	(b) Tipping buckets	(c) Animal cart	s (d) Bins			
7.	All means of reducing the amou	ints of waste that mu	st be collected and	l disposed of by soli	id		
	waste authorities is known as						
	(a) Waste reduction (b)	Source reduction (	(c) Waste recovery	(d) Recycli	ng		
8.	involves conversion	n of waste into gaseo	ous, liquid and soli	d conversion produc	ets		
	with concurrent or subsequent re	elease of heat energy	· •				
	(a) Hydrolysis processes (b) Thermal treatment						
	(c) Chemical treatment	(d	) Biological treatn	nent			
9.	are useful machines for the volume reduction of bulky waste such as reams						
	of paper, paper materials, bumpers, tires, refrigerators and the shredding of different						
	materials such as scrap iron, aluminum, copper, plastic as well as municipal solid waste and						
	industrial waste.						
	(a) Grinders (b)	Shredders (c)	) Trammels	(d) Wet pulping			
10.	refers to compacted	men or soil sealant	ts, etc., and are				
	generally less permeable, resista	nt to chemical attack	and have good so	orption properties.			
	(a) Natural liners		) Synthetic liners				
	(c) Geo-membrane	(d) ART – B (3 x 8= 24 I	) Geotextiles				
		$\begin{array}{c} \mathbf{A} \mathbf{K} 1 - \mathbf{B} & (3 \times 3 - 24) \\ \mathbf{A} \mathbf{Y} \mathbf{Y} \mathbf{Y} \mathbf{Y} \mathbf{Y} \mathbf{Y} \mathbf{Y} Y$	•				
11.	1. Explain the methodologies for characterization of Municipal Solid Waste.						
12.							
13.					3)		
14.	Explain in detail about Eneraffecting it.	gy Recovery from M	ISW. Also list out	the parameters (8)			
15.	Describe the Disposal meth	ods.		(8)			