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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TI - EXAMINATION (September - 2017)

M. Tech. (I- SEM.)/B.Tech. (VIII – SEM)

COURSE CODE: 14M31CE115

MAX. MARKS: 15

COURSE NAME: Solid Waste Management

COURSE CREDIT: 3

MAX. TIME: 1 HR

Note: Attempt all questions. Assume suitable data if required. Carrying of mobile phone during examinations will be treated as case of unfair means

1. Briefly discuss the salient features of 'Waste Stream Assessment' including (a) *Rationale for Analysis* and (b) *Field Investigations*. Explain with an example if necessary. **(3)**
2. Discuss the public and environmental health effects of SWM. **(3)**
3. Discuss the (a) source based and (b) type based classification of Solid Wastes. **(4)**
4. Determine the capacity of transfer station using the different methods using following information (a) collection vehicle payload of 1500 tons (b) total length of dumping space is 3 km (c) effective time of 8 hours of delivering waste (d) unloading time of 15 minutes (e) length of push pit is 12 m (f) number of push pit is 5 (g) cycle time is 45 minutes (h) transfer trailer payload is 3 tons and number of transfer trailers loading simultaneously is 8 (i) time to remove and replace each loaded trailer is 20 minutes (j) time to load each transfer trailer is 15 minutes (k) number of hoppers is 12 and (l) length of each hopper is 15 ft. (m) peaking factor of 7.5 **(5)**

CE-9, BT MT