

**M. SC. (ENVIRONMENT SCIENCE AND TECHNOLOGY) SEM  
- II (CBCS) (2013 COURSE) : WINTER - 2017  
SUBJECT : SOLID & HAZARDOUS WASTE MANAGEMENT**

Day : **Wednesday**  
Date : **15/11/2017**

**W-2017-0988**

Time : **10.00 AM TO 01.00 PM**  
Max. Marks : 60

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**N.B.**

- 1) Answer any **FIVE** questions.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw diagrams wherever necessary.
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- Q.1** a) Discuss the various social aspects related to solid waste management. (06)
- b) Describe in detail the various components in collection of municipal solid waste. (06)
- Q.2** a) What is plasma gasification? List its advantages and disadvantages. (06)
- b) What is the role of a rotary kiln incinerator in solid waste management? (06)
- Q.3** a) What are the various components of the 'Swachh Bharat' campaign. How can this program be made more effective? (06)
- b) Draw a schematic diagram of the municipal solid waste collection, storage, transport and disposal system in a city. What are the variations in each step to increase its effectiveness. (06)
- Q.4** a) Is biomedical waste handled and disposal appropriately in India? Discuss its present status. (06)
- b) As cities grow landfills are no longer viable. Discuss alternate options for waste disposal. (06)
- Q.5** a) Write a note on pyrolysis? (06)
- b) Give an account of the mechanical composting plant. (06)
- Q.6** Write short notes on any **THREE** of the following: (12)
- a) Material recovery facilities
  - b) Drop off/ buyback program
  - c) Cradle to cradle concept
  - d) Source reduction

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