



**DOON UNIVERSITY, DEHRADUN**  
**Mid Semester Examination, 2014, Third Semester**  
**M. Tech. (Environmental Technology)**  
**Course: ETC 535: Industrial Solid Waste Management**

*Time Allowed: 2 Hours*

*Maximum Marks: 30*

**SECTION: A (Answer in about max 100 words).**

Attempt any **EIGHT** questions.

*(Marks: 1.25 x 8 = 10)*

1. Hazardous wastes from nonspecific sources.
2. Enlist industries responsible for hazardous waste production in India.
3. What is the mixture rule for Hazardous waste?
4. On-site and off-site waste storage facilities.
5. What is the storage site design criterion for hazardous waste?
6. What type of packing material is used for storing hazardous industrial waste?
7. Write about Basel Convention on the transboundary movement of hazardous wastes.
8. Risk of uncontrolled landfilling of industrial wastes.
9. Natural liners being used in landfill operation.

**SECTION: B (Answer in about 300 words).**

Attempt **THREE** questions.

*(Marks: 4 x 3 = 12)*

1. Describe major characteristic tests to decide the hazardous nature of any industrial waste.
2. Describe hazardous waste compatibility in detail.
3. Describe liner system of a typical modern landfill. Also give example of synthetic lining materials.
4. Describe the modern landfill technology to dispose industrial waste with MSW. Also discuss multi-disposal technology in brief.

**SECTION: C (Answer in about 750 words).**

*(Marks: 1 x 8 = 8)*

1. Describe major waste-to-energy technologies available for waste treatment. Also, draw flow chart of fluidized bed pyrolysis process.