

Total No. of Questions :8]

SEAT No. :

**P2288**

**[4933]-45**

[Total No. of Pages :3

**M.Sc.**

**ENVIRONMENTAL SCIENCE**

**ENV-413: Environmental Management Systems (Theory & Job Licensing)  
(2008 Pattern) (Semester - IV) (Optional)**

*Time : 3 Hours]*

*[Max. Marks :80*

*Instructions to the candidates:*

- 1) Answers to the two sections should be written in separate books.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*
- 4) All questions carry equal marks.*

**SECTION-I**

**Q1)** Answer any two of the following:

- a) What is Life cycle Assessment? Explain in brief stages of LCA.
- b) Discuss importance of management review in Environment Management system.
- c) Discuss principles of Environmental design for buildings.

**Q2)** Attempt any two of the following:

- a) Discuss goal and purpose of EMS.
- b) Write in short benefits and limitations for conducting LCA.
- c) Write in short benefits of Environmental Design.

***P.T.O.***

**Q3)** Answer any two of the following:

- a) What is Plan-Do-Check-Act (PDCA) model?
- b) Discuss role of workers in Environment management in an organization.
- c) Explain importance of Impact assessment in LCA.

**Q4)** Write short notes on any two of the following:

- a) Environmental policy.
- b) Cradle to gate.
- c) Applications of EMS.

## **SECTION-II**

**Q5)** Answer any two of the following:

- a) Discuss Health impacts associated with solid waste treatment.
- b) Explain in short problems associated with transportation of municipal solid waste.
- c) Enlist types of composting. Add a note on vermicomposting.

**Q6)** Attempt any two of the following:

- a) Explain significance of recycling.
- b) Give classification system for hazardous waste.
- c) Discuss difference between industrial and agricultural solid waste.

**Q7)** Answer any two of the following:

- a) What are possible areas for improvement of municipal solid waste management in India?
- b) Explain in short concept of 'Refused derived fuel'.
- c) Write in short role of public participation in domestic solid waste treatment.

**Q8)** Write short notes on any two of the following:

- a) Biomedical waste.
- b) Hydrolysis.
- c) Elements of solid waste collection system.

*EEE*