

EIA AND EMS

Paper Code: ETEN-403

Paper: EIA and EMS

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INSTRUCTIONS TO PAPER SETTERS:

MAXIMUM MARKS: 75

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be 12.5 marks.

Objective:

- (1) *To provide an exposure to principles and procedures for EIA and EMS.*
- (2) *To focus on the methodology of EIA.*
- (3) *To emphasize on environmental audit, principles of ISO 14001 and monitoring and contingency plan to minimize release of emissions.*

UNIT -I

EIA: Steps in EIA: description of proposed activity, analysis of site selection procedure and alternate sites, baseline conditions / major concerns, description of potential positive and negative environmental, social, economic and cultural impacts including cumulative, regional, temporal and spatial considerations, significance of impacts, mitigation plans, identify issues related to human health, consideration of alternatives, including not proceeding.

EIA Methodologies: Criteria for the selection of EIA methodology, EIA methods, Adhoc method, Matrix method, Network method, Overlay method, Cost-Benefit analysis.

[T1, T2][No. of Hours: 10]

UNIT- II

Principles of ISO 14001: Commitment and Policy, Planning, Implementation, Measurement and Evaluation, Review and Improve. Salient points of ISO codes related to EMS. Life cycle assessment, Triple bottom line approach.

[T1, T2][No. of Hours: 10]

UNIT- III

Environmental Audit: ISO-19011, Qualities of Environmental Auditor, Contents of EA reports, Environmental Audit Terminology, Environmental management System audit.

[T1, T2][No. of Hours: 10]

UNIT –IV

Monitoring plans (impacts and mitigation efforts), contingency plans for unpredicted impacts , waste minimization and recycling plans, public consultation program, plans to minimize release of adverse substances, EIA Notifications and their flaws, Reporting.

[T1, T2][No. of Hours: 10]

Text Books:

[T1] Barthwal R.R., “Environmental Impact Assessment”, New Age International (P) Ltd., New Delhi.

[T2] Jain R.K., “Environmental Impact Assessment”, Tata McGraw Hill Education (P) Ltd., New Delhi.

Reference Books

[R1] Canter L.W., “Environmental Impact Assessment”, McGraw Hill, New York.

[R2] Kurge W.,” ISO 14001 Certification – Environmental Management System”, PHI Learning (P) Ltd., New Delhi. [R3] Lampercht J.,” ISO 9000 – Preparing for Registration”, Dekker Pub. Co.

[R4] Badrinath S. D. and Raman N. S.,”Certification Scheme for Environmental Audit”, Chemical Business Volume-7, New Delhi..

[R5] Badrinath S. D. and Rama N. S.,“Environmental Audit: A Step Towards an Ecological Economy”, Chemical Business Volume 12, New Delhi.