

Certificate Course in Environmental Management Examination, August 2009
Course – I Block – I : ENVIRONMENTAL MANAGEMENT AND POLICY

Time : 3 Hours

Total Marks : 80

SECTION – A

Answer **all** questions :

(40×1=40)

I. Objective Type :

One mark Questions :

1. Name some Secondary Consumers.
2. What is a Nutrient cycle ?
3. Expand NGO.
4. Silent Valley Struggle held in which place ?
5. What do you mean by the polluter pays principle ?
6. What is an impact indicator ?
7. What is the difference between the food chain and the food web ?
8. What is the difference between Biotic and Abiotic components ?
9. What is energy flow ?
10. What is the principle of intergenerational equity ?

True/False :

11. ECOSOC means Economic society.
12. Soil erosion is good for agriculture.
13. Air pollution has become one of the reasons for health hazards in urban areas.

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14. Abiotic components of the ecosystem include a variety of organic compounds and basic inorganic elements and compounds.
15. We don't depend on environment to meet our basic requirements.
16. The document Caring for the Earth was published in 1991.
17. Food chains are isolated sequences and they are not interconnected.
18. 1975-1985 was considered as 'UN Decade for Women'.
19. The NEPA is National Education Policy Act.
20. UNCED is also known as Earth Summit.

Multiple choice questions :

21. The primary objective of sustainable development is to
 - a) Reduce absolute poverty
 - b) To destroy forests
 - c) To use all the natural resources
 - d) To increase GDP
22. Energy is
 - a) Heat
 - b) Ability to work
 - c) Sun
 - d) Strength
23. The law of entropy is the law of
 - a) Thermodynamics
 - b) Dynamics
 - c) Engine
 - d) Energy
24. Silent Spring, a book about the use of pesticides was written by
 - a) Rachel Carson
 - b) Johnson
 - c) J. Bush
 - d) Carolina
25. The World summit on sustainable Development is also known as
 - a) Earth Summit + 10
 - b) Sun Summit
 - c) UN Summit
 - d) World Summit

26. UNEP means
- a) The United Nations Environment Programme
 - b) The United Nations Educational Programme
 - c) The United Nations Earth Programme
 - d) The United Nations Environment Policy
27. Brundtland Report came out in
- a) 1987 b) 1997 c) 1968 d) 1990
28. The National Environmental Policy Act (NEPA) came out in the year
- a) 1958 b) 1965 c) 1960 d) 1969
29. The USA-NEPA came out in the year
- a) 1969 b) 1990 c) 1973 d) 1897
30. Silent Valley struggle took place in
- a) Karnataka b) New Delhi
 - c) Kerala d) Andhra Pradesh

Fill in the blanks :

31. Environmental impacts of developmental activities are visible since _____
32. The forest Policy of _____ emphasized the exploitation of forests primarily for producing valuable timber for industries.
33. Chipco movement started in the year _____
34. 1992 UNCED conference was held in _____
35. The IBRD is also known as _____
36. Environmental advocate _____ filed a public litigation bill in the Supreme Court for the protection of Taj.
37. Silent valley movement was started in _____ state.
38. Paris Convention came in the year 1992 for the protection of _____
39. Environmental Protection Act came in the year _____
40. Grazing food chain starts from a _____

SECTION – B

II. Answer **any eight** of the following :

(8×5=40)

- 1) Explain the fundamentals of EM and ecosystem.
 - 2) What are the implications of population growth on the Environment ?
 - 3) Explain the significance of sustainable development with the help of some of the definitions.
 - 4) Name some of the approaches to EM to achieve sustainability.
 - 5) What is Biological production ? Explain with examples.
 - 6) Write a note on the International Environmental Movement.
 - 7) Write a note on the Environmental concerns in India.
 - 8) Briefly describe the significance of studying Environment under Economics.
 - 9) What are agro-environmental policies and why they are important ?
 - 10) Elaborate how Environmental Laws regulate the use of resources.
 - 11) Discuss some of the basic principles of international environmental laws.
 - 12) Describe some of the steps in the EIA process.
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Certificate Course in Environmental Management Examination, August 2009
Course – II – Block – I : LIFE CYCLE ANALYSIS AND ENVIRONMENTAL
MANAGEMENT SYSTEMS

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions :

(1×40=40)

I. Choose the correct answer :

- 1) Rio Summit was held in the year _____
a) 1992 b) 1998 c) 2002 d) 2004
- 2) CO₂ contributes about _____ contents of Global Warming Gases.
a) 4% b) 10% c) 15% d) 60%
- 3) The stratosphere is characterized by the presence of large concentration of _____
a) Oxygen b) Nitrogen c) Ozone d) Halogens
- 4) Nutrient enrichment in lakes is called _____
a) Acidification
b) Eutrophication
c) Pollution
d) Oligotrophication
- 5) Ozone is a very _____ molecule.
a) reactive b) inert c) unstable d) stable
- 6) Characterization is mainly a _____ step.
a) quantitative b) qualitative
c) arbitrary d) inherent

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- 7) Energy consumption is an example of _____
- a) monetarization
 - b) technology abatement approach
 - c) proxy approach
 - d) none of these
- 8) The comparison of the normalized Environmental profiles of different alternatives is _____ step of the LCA.
- a) first
 - b) intermediate
 - c) penultimate
 - d) last
- 9) ISO Type – III labeling is associated with Environmental _____
- a) labelling
 - b) claims
 - c) declarations
 - d) none of these
- 10) EMAS stands for _____
- a) Environmental Management and Auditing Scheme
 - b) Environmental Monitoring and Analysis Scheme
 - c) Environmental Monetary and Assessment Scheme
 - d) Eco-Management of Air Pollution Standards
- 11) The use of materials in the product for manufacture of the same or other products is called _____
- a) reuse
 - b) incineration
 - c) composting
 - d) recycling
- 12) The three aspects associated with functional unit are _____ of the product.
- a) composition, quantity and durability
 - b) durability, efficiency and composition
 - c) efficiency, durability and performance quality
 - d) composition, performance quality and quantity

- 13) The measure of variability of the data values for each category expressed is called _____
- a) consistency
 - b) precision
 - c) completeness
 - d) reproducibility
- 14) When doing a detailed LCA, _____ data is preferred.
- a) site-specific
 - b) general source
 - c) random
 - d) none of these
- 15) The second element in life cycle impact assessment is _____
- a) definition of the impact
 - b) characterization of the inventory data
 - c) valuation
 - d) classification of the inventory input and output data
- 16) The relative responses of outputs to change in inputs are considered in _____ analysis.
- a) conduct gap
 - b) sensitivity
 - c) inventory
 - d) life cycle
- 17) The reproduction damaging substance is _____
- a) polypropylene
 - b) polyurethane
 - c) PVC
 - d) styrene
- 18) Anoxic condition or depletion of DO is seen in _____ water body.
- a) fresh
 - b) marine
 - c) oligotrophic
 - d) eutrophic
- 19) Environmental claims are defined by _____ labelling.
- a) ISO Type – I
 - b) ISO Type – II
 - c) ISO Type – III
 - d) None of these

- 28) ISO 14041 : Environmental Management – LCA deals with _____
- a) Principles of Framework
 - b) Inventory Analysis
 - c) Impact Assessment
 - d) Interpretation
- 29) Combustion of the product generating heat is called _____
- a) incineration
 - b) composting
 - c) fermentation
 - d) recycling
- 30) The measure of variability of the data values for each category expressed is referred to as _____
- a) completeness
 - b) consistency
 - c) precision
 - d) representativeness
- 31) The purpose of the critical review process is to ensure _____ the life cycle assessment.
- a) duration
 - b) quality
 - c) quantity
 - d) precision
- 32) If a waste material leaving the system boundaries is used as a raw material by another system it is referred to as _____
- a) multi input process
 - b) multi output process
 - c) open-loop recycling
 - d) none of these
- 33) The characterization of the inventory data is the _____ step in LCA.
- a) first
 - b) second
 - c) third
 - d) last
- 34) ISO formed a Strategic Action Group on the Environment (SAGE) in _____
- a) 1991
 - b) 1981
 - c) 1971
 - d) 1961

- 35) A bibliography of documents from both the ISO 9000 and ISO 14000 series is provided by _____
- a) Annex A
 - b) Annex B
 - c) Annex C
 - d) None of these
- 36) Sand and Copper ore are _____ resources.
- a) renewable
 - b) non-renewable
 - c) indestructible
 - d) destructible, renewable
- 37) The production of _____ involves the use of isocyanides.
- a) Polystyrene
 - b) Polyethylene
 - c) Polyethylene terephthalate
 - d) Polyurethane
- 38) Production of primary aluminium is _____
- a) extremely energy spending
 - b) extremely energy consuming
 - c) extremely energy maintaining
 - d) none of these
- 39) ISO was formed in _____
- a) 1937
 - b) 1947
 - c) 1957
 - d) 1967
- 40) Which of the following gives guidelines for life cycle assessment ?
- a) ISO 14040
 - b) ISO 14030
 - c) ISO 14020
 - d) ISO 14010

SECTION – B

II. Answer **any eight** of the following :

(8×5=40)

- 1) Describe the steps considered in selecting impact categories.
 - 2) Mention the elements to be considered and described in LCA study.
 - 3) Discuss nutrient enrichment.
 - 4) Point out Environmental Problems associated with PVC.
 - 5) What are the core elements of Environmental Management System ?
 - 6) Explain the three key principles considered by ISO.
 - 7) Point out the elements of EMS conforming to ISO 14001.
 - 8) What are the strategies used by product standards to protect the Environment ?
 - 9) Briefly discuss Environmental Modelling.
 - 10) Discuss the steps involved in registration process.
 - 11) How Environmental Auditing is done for a post implementation project ?
 - 12) Explain the steps involved in the analysis of Environmental resources.
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Certificate Course in Environmental Management Examination, August 2009
Course – I : Environmental Management and Auditing
Block – II : ENV. ASSESSMENT AND ENV. AUDITING

Time : 3 Hours

Max. Marks : 80

SECTION – A

(1×40=40)

Answer **all** the questions.

I. Choose the correct answer :

- 1) Site Audit is the first step in obtaining in a _____ understanding of pollution problems
 - a) qualitative
 - b) quantitative
 - c) both qualitative and quantitative
 - d) none of these

- 2) Which methodology relay on set of maps ?
 - a) ad hoc
 - b) overlays
 - c) checklist
 - d) none of these

- 3) The terms of reference (TOR) of a site Audit is _____
 - a) site specific
 - b) non-site specific
 - c) site random
 - d) none of these

- 4) Health and Safety Audit form _____ Audit.
 - a) Activities
 - b) Management
 - c) Liabilities
 - d) Third party

- 5) Scaling of the effects addresses issues of magnitude based on _____ system.
 - a) numerical
 - b) evaluation
 - c) analysis
 - d) pictorial

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- 6) Cost-Benefit Analysis consist of _____
- a) evaluation of cost and benefits
 - b) enumeration of cost and benefits
 - c) discounting and presentation of results
 - d) all of the above
- 7) Rio Declaration insisting that Environmental Issues are best handled with the participation of all concerned citizens is mentioned in _____
- a) Principle 10
 - b) Principle 9
 - c) Principle 8
 - d) Principle 7
- 8) Corporate Audit is a type of _____ Audit.
- a) Liabilities
 - b) Management
 - c) Activities
 - d) None of these
- 9) Product Audit are included under _____ Audit.
- a) third party
 - b) regulatory
 - c) activities
 - d) management
- 10) The first step in Environmental Auditing
- a) audit preparation
 - b) scrutiny
 - c) reporting
 - d) follow up
- 11) SEA stands for _____
- a) Strategic Environmental Assessment
 - b) Scientific Environmental Assessment
 - c) Systematic Ecological Assessment
 - d) Screening Environmental Assessment
- 12) The primary step in EIA in India is _____
- a) impact prediction
 - b) baseline data collection
 - c) scoping
 - d) screening

- 13) _____ evaluates and assesses EIA report.
- a) Environmental Agency
 - b) Impact Assessment Agency
 - c) PCB
 - d) MoEF
- 14) The identification of individuals, communities to be affected by a project is discussed in _____
- a) project screening
 - b) impact identification
 - c) scoping
 - d) environmental baseline
- 15) Project activities and potentially impacted Environmental characteristics are described in _____
- a) overlays
 - b) network
 - c) checklist
 - d) matrices
- 16) Environmental Auditing involves _____
- a) review of management systems
 - b) identification of needs and strengths and weaknesses
 - c) promotion of environmental awareness
 - d) all of above
- 17) Parts of the environment that come to the service of mankind are called _____
- a) products
 - b) resources
 - c) materials
 - d) goods
- 18) Which methodology is designed to explicitly consider higher order, i.e., secondary and even tertiary consequences in addition to the primary cause—effect relations ?
- a) checklist
 - b) modelling
 - c) ad hoc
 - d) network

- 19) PPP stands for _____
- a) Pollution, Poverty, Population
 - b) Primary, Pollution, Prevention
 - c) Pollution, Prevention, Protocol
 - d) Policy, Plan, Programme
- 20) Physical sampling and testing of contaminants in laboratories are detailed in _____ of liability audit.
- a) Phase – 1
 - b) Phase – 2
 - c) Phase – 3
 - d) None of these
- 21) Resource Conservation and Recovery Act enacted in the USA during the early _____
- a) 1960s
 - b) 1970s
 - c) 1980s
 - d) 1990s
- 22) Issues Audit is carried out to establish _____
- a) Environmental Management Plan and Targets
 - b) Green Labelling
 - c) Policy Making
 - d) Business Activities
- 23) Independent External Audit is _____
- a) objective based
 - b) client-driven type
 - c) liability type
 - d) management type
- 24) EPA refers to _____
- a) Environment Preservation Agency
 - b) Environment Pollution Agency
 - c) Eco-People Authority
 - d) Environmental Protection Agency

- 33) The process of documenting, usually in measurable terms, knowledge, skills, attitudes and belief is called _____
a) Impact b) Assessment c) Prediction d) Resolution
- 34) Who evaluates and assesses the EIA report ?
a) EMP b) EAC c) IAA d) None of these
- 35) The Environmental Impacts through design, manufacture, use and disposal are covered in _____ Audit.
a) Management b) Product
c) Liability d) Regulatory
- 36) EIA report should be prepared in a manner that conforms to _____ regulations and guidelines
a) National b) International
c) National and International d) Local
- 37) A typical TOR includes _____
a) overall and specific objectives
b) scope of work and baseline data
c) impact area and work plan
d) all of the above
- 38) A combination of scaling and weighting is useful because it combines measures of _____
a) magnitude and significance b) magnitude and quality
c) quality and significance d) quality and quantity
- 39) When was EIS started to be applied for Environmental Projects ?
a) in 1960 under EPA b) in 1959 under NEPA
c) in 1960 under MoEF d) in 1969 under NEPA
- 40) _____ should be conducted by PCB before EIS report is to sent to MoE for decision making.
a) screening b) scrutinization
c) public hearing d) project proposal

SECTION – B

II. Answer **any eight** of the following :

(8×5=40)

- 1) Explain the benefits and constraints of SEA.
 - 2) Explain the steps involved in audit preparation.
 - 3) Give an account of Impact Identification.
 - 4) Discuss Cost-Benefit Analysis.
 - 5) Explain scoping of EIA.
 - 6) Discuss the different types of Audits based on the Client.
 - 7) Discuss the procedure for the execution of Site Audit.
 - 8) Explain Phase-2 of Liability Audit.
 - 9) Point out the recommendations based on the health and safety Audit made at Viscose Rayon Unit.
 - 10) What are the basic structure of Environmental Auditing ?
 - 11) Explain the role of Public participation in EIA programme.
 - 12) Describe Site Audit.
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