

Roll No.

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**M.Sc. (Fourth Semester)
EXAMINATION, May-June, 2022
ENVIRONMENTAL SCIENCE
Paper Third
(EIA,EA AND EMSS)**

Time : Three Hours]

[Maximum Marks:80

[Minimum Pass Marks:16

Note: Attempt all section as directed.

(Section - A)

(Objective/Multiple Choice Questions)

(1 mark each)

Note: Attempt all questions. Choose the correct answer:

1. The committee, which reviews the EIA and EMP reports of developmental projects in Ministry of Environment, Forest & Climate Change, is called:
(A) Project Assessment Committee
(B) Environmental Appraisal Committee
(C) Project Evaluation committee
(D) Environmental Clearance Committee

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2. Environmental assessment of developmental projects follows the following sequence to achieve sustainable development:
(A) EA → EMP → EIA
(B) EMP → EA → EIA
(C) EIA → EA → EIA
(D) EIA → EMP → EA
3. Who launched the "Green Belt Movement" in Kenya and got Nobel Peace Prize:
(A) Wngari Maathai
(B) Gehard Ertl
(C) Koichi Tanaka
(D) Ryojii Noyori
4. Match the List - I and List - II identify the correct answer from the codes given below:

List - I	List-II
(Analytical Function)	(Activity under the function)
(a) Defining scope of EIA	1. Critical Assessment of impacts
(b) Identification of impacts	2. Description of the existing environmental system
(c) Prediction of impacts	3. Deciding important issues and concerns

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(d) Impact Evaluation and Analysis

4. Estimation of the probability that a particular impact will occur

Codes:	a	b	c	d
(A)	2	1	4	3
(B)	1	2	3	4
(C)	3	2	4	1
(D)	4	3	2	1

5. Which of the following does not belong to EIA methods used for assessing the impacts for developmental activities on the environment?
- (A) Checklist Method
(B) Adhoc Method
(C) Network Method
(D) Flexible method
6. Which one of the following steps is not included in the scoping process?
- (A) Baselines description and potential additional data collection needs
(B) Description of environmental impacts and creation of contingency plan
(C) Defining set of criteria to assess the projects
(D) Setting of experts term that will conduct EIA

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7. An ecosystem restoration project should have the outcomes which are :

- (I) Specific
(II) Measurable
(III) General
(IV) Realistic
(V) Time bond

Choose the most appropriate answer from the options given below:

- (A) I, II, III, V
(B) I, II, IV, V
(C) II, III, IV, V
(D) I, II, III, IV

8. Match the List - I and List - II identify the correct answer from the codes given below:

List - I

List-II

(Hydropower Projects)

(River)

- | | |
|----------------------------|---------------------|
| (a) Sardar Sarovar Project | 1. Bhagirathi River |
| (b) Tehri Dam Project | 2. Narmada River |
| (c) Pong Dam Project | 3. Mahanadi River |
| (d) Hirakund Project | 4. Beas River |

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Codes:	a	b	c	d
(A)	2	1	4	3
(B)	1	2	3	4
(C)	4	3	2	1
(D)	3	4	2	1

9. The best known type of quantified matrix, Leopold matrix considers how many environmental components?

- (A) 100
- (B) 67
- (C) 88
- (D) 12

10. In Environmental Impact Assessment, the full form of CEQ is:

- (A) Center for Educational Quality
- (B) Council on Environmental Quality
- (C) Centre for Environmental Quality
- (D) Council on Educational Quality

11. Match List - I with List - II and choose correct answer from the codes given below:

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List - II

List-II

(Impact Assessment Methodologies) (Corresponding Env.)

- | | |
|----------------|--------------------------|
| (a) Air | 1. Ecosystem Model |
| (b) Biological | 2. Gaussian Models |
| (c) Water | 3. Mass balance approach |
| (d) Land | 4. GIS |

Codes: a b c d

- (A) 2 1 3 4
- (B) 1 2 4 3
- (C) 4 3 1 2
- (D) 3 4 2 1

12. Qualifying the energy and raw material requirement as a part of life cycle assessment, is termed as:

- (A) Life Cycle Improvement analysis
- (B) Life Cycle impact analysis
- (C) Life Cycle inventory
- (D) Life Cycle pre - requisites

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13. The validity period of Environmental Clearance after EIA is least for:
- (A) Mining Project
 - (B) River valley project
 - (C) Harbour projects
 - (D) Area development project
14. The EIA report of a hydropower project would be valid up-to how many years after the environmental clearance of the project (As per New ammendment 12th April, 2022)?
- (A) 10 Year
 - (B) 13 Year
 - (C) 15 Year
 - (D) 25 Year
15. Match the 'phase' with the 'activity' in Environmental Audit. Identify the correct answer from the codes given below the lists.
- | List - I (Phase) | List-II (Activity) |
|---------------------|---|
| (a) Pre - Audit | 1. Human input-output analysis in relation to economy |
| (b) On - site Audit | 2. Reviewing audit-check lists |
| (c) Post - Audit | 3. Record/Documents Review |

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- Codes:** a b c
- (A) 2 3 1
 - (B) 1 3 2
 - (C) 1 2 3
 - (D) 3 2 1
16. Which of these IS Codes refers to 'Packaged Drinking Water' (other than packaged natural mineral water)?
- (A) IS - 14543
 - (B) IS - 15543
 - (C) IS - 9543
 - (D) IS - 14143
17. Environmental Performance evaluation comes under?
- (A) 14040 series
 - (B) 14015 series
 - (C) 14030 series
 - (D) 14060 series
18. The Government of India has introduced a scheme of eco- labelling of consumer products as "Ecomark":
- (1) This scheme was introduced in 1986
 - (2) This scheme was introduced in 1991
 - (3) 'ISI' was given the mark for this scheme

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- (4) An 'earthen pitcher' was made the symbol for this scheme

Choose the most appropriate answer from the options given below:

- (A) Only 1 & 4
- (B) Only 1 & 3
- (C) Only 2 & 4
- (D) Only 3 & 4

19. As per the coastal regulation zone (CRZ) notification (1991), CRZ - I includes which of the following?

- (a) Ecosensitive zones
- (b) Fishing zones
- (c) Intertidal zones
- (d) Developmental zones

Choose the most appropriate answer from the options given below:

- (A) (a) & (b) Only
- (B) (b) & (c) Only
- (C) (a) & (d) Only
- (D) (d) & (c) Only

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20. Match List - I with List - II and choose correct answer from the codes given below

List - I (Series) **List-II** (Environmental Labelling)

- (a) ISO 14021 1. Principle and procedures
- (b) ISO 14022 2. Self declaration of environmental claim.
- (c) ISO 14023 3. Symbols
- (d) ISO 14021 4. Testing and Verification methods

Codes : a b c d

- (A) 1 2 3 4
- (B) 2 3 4 1
- (C) 3 4 1 2
- (D) 4 1 3 2

Section - B

(Very Short Answer Type Questions)

(2 marks each)

Note: Attempt any eight questions. Write in two-three sentences.

- 1. What are the steps involved in the evaluation of Risk?
- 2. Explain the levels of citizen participation in EIA process.
- 3. Explain the importance of objectives of EIA studies.
- 4. In EIA report, how 'analysis of alternatives' is explained.

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5. What is the significance of meteorological studies in EIA process?
6. What do you understand by Consumption audit?
7. What is Impact Prediction?
8. How Green Belt is important for the development of project?
9. What are the criteria for identifying an initial list of potential impacts which is relevance to a proposed project?
10. Explain the legislative aspect in EIA studies by ISO.

Section - C

(Short Answer Type Questions)

(3 marks each)

Note: Attempt any eight questions.

1. Explain the procedure of constitution of state level expert appraisal committee (SEAC) and EIA Authority (SEIAA).
2. Explain environmental management plan for water environment considering any suitable industrial project.
3. In an environmental audit which is the treatment and disposal options usually consider.
4. Explain in briefly the conceptual approach for the biological environmental assessment.

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5. What are the steps involved in EIA studies of coal mining project.
6. Differentiate between objective - based and client - driven type environment audit.
7. Discuss the role of ISO & BIS in the prevention of future disasters.
8. Explain the practical consideration while preparing EIS.
9. Write note on Cost Benefit Analysis.
10. How you can analysis of strengths weakness opportunities and threats in EIA Process?

Section - D

(Long Answer Type Questions)

(5 marks each)

Note: Attempt all questions.

1. What is the importance of public consultation in EIA and how it is carried out in EIA process.

OR

Discuss salient features of the EIA Notification, 1994 as amended up to date.

2. What type of methodological data and ambient air quality data is required for carrying out EIA process in thermal

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power Plant? Discuss in detail.

OR

Write short note on the following:

(A) Salient Aspect of Land Use of India.

(B) Role of Decision Makers in EIA process.

3. What are the significant challenges will you face when performing an environmental audit process.

OR

How Environmental Audit benefit in Economic & Environmental prospect? Discuss in detail.

4. Explain how ISO 9000 and ISO 14000 play essential roles in the sustainable development of any country.

OR

What do you understand by sustainable development?
Discuss the role of different sectors in maintaining sustainability.