GUJARAT TECHNOLOGICAL UNIVERSITY

[BE-7 SEMESTER] – OLD PAPER – S22 TO S26 – QUESTION BANK

Subject Name & Code: Environmental Impact Assessment- 3171311

Chapter 1: Sustainable Development

Repeated Questions:

1. Sustainable Development – Concept, Principles and Goals:

- **Q.** Define the term "Sustainable Development". Explain its importance. **(SUMMER 2023, 3 Marks; SUMMER 2024, 3 Marks)**
- **Q.** Explain the concept of Sustainable Development. **(WINTER 2022, 4 Marks; WINTER 2025, 3 Marks)**
- **Q.** Enlist the Sustainable Development Goals and explain any one. / Define sustainable concept & Name the 17 SDGs. **(SUMMER 2023, 4 Marks; SUMMER 2024, 4 Marks; SUMMER 2025, 3 Marks)**
- **Q.** State the principles of sustainable development. **(SUMMER 2022, 3 Marks; WINTER 2022, 3 Marks)**

2. Harmonious and Non-Harmonious Development; Carrying Capacity:

- **Q.** Enlist the effects of Ad hoc/Non harmonious development. / Enlist the results of non-harmonious development. **(SUMMER 2023, 3 Marks; WINTER 2023, 3 Marks; SUMMER 2024, 3 Marks)**
- **Q.** Explain Harmonious and Non Harmonious Development. **(WINTER 2025, 4 Marks)**
- **Q.** Define the term "Carrying Capacity". Write a note on Carrying Capacity based development. / Explain Regional Carrying Capacity based Sustainable Development. **(SUMMER 2023, 7 Marks; SUMMER 2024, 7 Marks; WINTER 2024, 7 Marks)**

3. Human Activity and Environmental Impact:

- **Q.** With the help of a neat sketch, establish relationship between human activity and its environmental impacts. / Highlight the relationship between man's action, environmental effects and impact with the help of a labeled flow diagram. [Diagram required – refer to the original question paper] **(SUMMER 2023, 7 Marks OR; WINTER 2023, 7 Marks; SUMMER 2024, 7 Marks OR)**
- **Q.** Establish the relationship between human activity and environmental impact for deforestation. **(WINTER 2022, 4 Marks; SUMMER 2025, 4 Marks)**
- **Q.** Establish the relationship between human activity and environmental impact for dam construction. **(SUMMER 2022, 4 Marks)**

4. EIA and Development:

- **Q.** EIA is anti-development activity: a myth or fact? Justify the statement. **(SUMMER 2022, 7 Marks; WINTER 2022, 7 Marks)**

Other Important Questions:

1. Sustainable Development – Concept, Principles and Goals:

- **Q.** Enlist the methods to achieve sustainable development and explain any two. **(WINTER 2023, 4 Marks)**
- **Q.** How to achieve Sustainable Development? Explain it in detail. **(WINTER 2025, 7 Marks)**
- **Q.** Define Sustainable Development and its need. **(WINTER 2024, 3 Marks)**
- **Q.** Enlist and explain sustainable development goals. **(WINTER 2024, 7 Marks)**

2. EIA and Development:

- **Q.** Write a detailed note on role of EIA as an approach to achieve sustainable development. **(SUMMER 2022, 7 Marks)**

Chapter 2: EIA Notification September 2006 and amendments

Repeated Questions:

1. EC Procedure – Stages, TOR, Screening and Scoping:

- **Q.** Enlist and explain the stages for getting Environmental Clearance as per EIA Notification 2006. / Enlist and explain the stages of Environmental Clearance process as per EIA, Notification, 2006. / Explain the important steps for obtaining environmental clearance as per EIA notification 2006. **(SUMMER 2023, 3 Marks; WINTER 2023, 7 Marks; SUMMER 2024, 3 Marks; WINTER 2024, 7 Marks OR; WINTER 2025, 4 Marks)**
- **Q.** What is TOR? Explain its importance in Environmental Clearance process. **(SUMMER 2023, 3 Marks OR; SUMMER 2024, 3 Marks OR; SUMMER 2025, 4 Marks; WINTER 2025, 4 Marks OR)**
- **Q.** Explain the terms screening and scoping. / Differentiate between the terms screening and scoping. / Differentiate between screening and scoping in Environmental Clearance process. **(WINTER 2022, 3 Marks; WINTER 2023, 3 Marks; WINTER 2024, 3 Marks; SUMMER 2025, 3 Marks)**
- **Q.** Draw flow chart of the EC procedure along with the time limit. / Draw a flow chart for obtaining Environmental Clearance (EC) for proposed developmental activity. **(SUMMER 2022, 7 Marks OR; SUMMER 2025, 7 Marks OR)**

2. Public Participation and Public Hearing:

- **Q.** Highlight the importance of public participation in EIA. / What is the role of public participation in EIA process? / Discuss the significance of public participation in EIA process. **(SUMMER 2022, 4 Marks; WINTER 2022, 3 Marks; SUMMER 2023, 4 Marks; SUMMER 2024, 4 Marks; WINTER 2024, 4 Marks; SUMMER 2025, 3 Marks OR)**
- **Q.** State the merits and demerits of public participation in EIA process? **(WINTER 2023, 7 Marks; WINTER 2025, 7 Marks OR)**
- **Q.** Explain the procedure of public hearing as per EIA Notification, 2006. / Explain the step by step procedure for conducting public hearing process. **(WINTER 2024, 7 Marks OR; SUMMER 2025, 7 Marks; WINTER 2025, 7 Marks)**

3. Categorization of Projects under EIA Notification 2006:

- **Q.** Write down the specific and general conditions for categorizing industries as per EIA Notification 2006. / Discuss the specific & general conditions as per the EIA notification 2006. / Discuss the general condition & specific condition as per EC notification. **(SUMMER 2022, 4 Marks; SUMMER 2023, 4 Marks OR; SUMMER 2024, 4 Marks OR; SUMMER 2025, 3 Marks)**
- **Q.** As per EIA Notification, explain which projects require prior Environmental Clearance. / Classify the projects that require prior environmental clearance. / Enlist category A project as per EIA Notification, 2006. / Enlist category B project as per EIA Notification, 2006. **(SUMMER 2023, 3 Marks; WINTER 2023, 4 Marks; SUMMER 2024, 3 Marks; WINTER 2025, 4 Marks; WINTER 2025, 4 Marks)**
- **Q.** Categorize the following projects as per EIA Notification, 2006: Construction Project = more than 20000 m^2 built up area; Coal based power plant = capacity 200 MW; Coal Mining = 30 ha; CETP = without incinerator in industrial area. **(WINTER 2024, 4 Marks)**

4. SEIAA and SEAC:

- **Q.** Write a note on constitution of SEIAA. / Write down composition of SEIAA and SEAC. / Write constitution of SEIAA. **(SUMMER 2023, 3 Marks; SUMMER 2024, 3 Marks; WINTER 2024, 4 Marks; WINTER 2025, 4 Marks)**
- **Q.** Explain the role of the SEAC & SEIAA in EC procedure. / Write full forms of SEAC & SEIAA in EC procedure & explain their role. / Write constitution of SEAC. **(SUMMER 2022, 3 Marks; SUMMER 2025, 4 Marks; WINTER 2025, 4 Marks)**

5. EIA Notification and Legislation:

- **Q.** Narrate in detail Environmental legislations in India for EIA. **(SUMMER 2022, 7 Marks; SUMMER 2025, 7 Marks OR)**

Other Important Questions:

1. EC Procedure – Stages, TOR, Screening and Scoping:

- **Q.** Define the following terms: I. Screening II. Scoping III. Public hearing **(SUMMER 2022, 3 Marks)**

2. EIA Notification and Legislation:

- **Q.** Explain the latest amendment of EIA notification. **(SUMMER 2022, 4 Marks)**
- **Q.** Write the salient features of EIA notification. **(SUMMER 2025, 4 Marks OR)**

Chapter 3: EIA Process

Repeated Questions:

1. EIA as a Four-Step Activity and Decision-Making:

- **Q.** Explain EIA as a four step activity. / EIA is a four step activity, Justify the statement. / Enlist the four steps of EIA and explain the significance of each step. / Discuss EIA as a four step activity. **(WINTER 2022, 7 Marks OR; SUMMER 2023, 7 Marks; WINTER 2023, 7 Marks; SUMMER 2024, 7 Marks; WINTER 2024, 7 Marks; SUMMER 2025, 7 Marks; WINTER 2025, 7 Marks OR)**
- **Q.** Explain EIA is an integral part of the planning and decision making process. / How is EIA an integral part of decision-making process? Justify with an explanation. **(WINTER 2022, 7 Marks; WINTER 2023, 7 Marks)**

2. Types and Classification of Impacts:

- **Q.** Explain primary, secondary and tertiary impacts with examples. / Differentiate between primary impacts, secondary impacts and tertiary impacts. / Distinguish between primary, secondary and tertiary impacts with example. **(SUMMER 2023, 3 Marks; WINTER 2023, 3 Marks; SUMMER 2024, 3 Marks; WINTER 2024, 3 Marks OR)**
- **Q.** Based on acceptability, explain how impacts can be classified, giving relevant examples. / Explain giving examples: acceptable, conditionally acceptable and completely unacceptable impacts. **(SUMMER 2023, 3 Marks OR; WINTER 2023, 3 Marks; SUMMER 2024, 3 Marks OR)**
- **Q.** Differentiate between: Reversible impacts and irreversible impacts. / Identify the reversible & irreversible likely to occur for typical (i) Mining activity (ii) River valley project. / Differentiate between Reversible Impact and Irreversible Impact with example. / Write down the reversible & irreversible impacts occurred due to mining project. **(SUMMER 2022, 7 Marks; WINTER 2022, 4 Marks; WINTER 2024, 3 Marks; SUMMER 2025, 3 Marks; WINTER 2025, 7 Marks)**
- **Q.** Differentiate between short term and long term impacts. / Differentiate between Short term Impact and Long Term Impact with example. / Highlight the short term and long-term impacts of expansion project of a port and harbour. / Identify the short term & long term impacts caused by chemical industry. **(SUMMER 2022, 3 Marks; WINTER 2022, 4 Marks OR; WINTER 2023, 4 Marks; WINTER 2024, 3 Marks; SUMMER 2025, 3 Marks OR)**
- **Q.** Discuss various direct and indirect impacts likely to occur for typically for (i) Land Cleaning Activity and (ii) Road Construction Activity. / Explain various direct and indirect impacts likely to occur for typical (i) Land Cleaning Activity and (ii) Road Construction Activity. / Discuss various direct and indirect impacts likely to occur for typical (1) Thermal power plant project (2) Port construction project. **(SUMMER 2022, 7 Marks; WINTER 2022, 7 Marks; WINTER 2023, 7 Marks)**

3. EIA Report, EIS and Environmental Management Plan:

- **Q.** Write a note on Detailed contents of EIA. / Enlist the detailed contents of EIA and explain any five. / Explain the detailed contents of EIA Report. / Enlist and explain detailed contents of EIA Report. / Enlist and explain contents of Environmental Impact assessment Report. **(SUMMER 2022, 7 Marks; SUMMER 2023, 7 Marks OR; WINTER 2023, 3 Marks; SUMMER 2024, 7 Marks OR; WINTER 2024, 7 Marks OR; WINTER 2025, 4 Marks OR)**
- **Q.** Write a note on Environmental Management Plan. / Discuss Environmental Management Plan for construction Project. **(SUMMER 2023, 3 Marks; SUMMER 2024, 3 Marks; WINTER 2024, 4 Marks OR; WINTER 2025, 3 Marks)**
- **Q.** Why it is considered that EIS is the conclusion of EIA. / Define the EIS & how it is different than the EIA? **(SUMMER 2022, 3 Marks; WINTER 2022, 3 Marks)**
- **Q.** Explain the importance of mitigation in EIA. / Explain the importance of mitigation of impacts in EIA. **(SUMMER 2022, 4 Marks; WINTER 2022, 4 Marks; WINTER 2024, 4 Marks; SUMMER 2025, 4 Marks OR)**
- **Q.** Write a short note on generic structure of EIA. / Write down a generic structure of EIA report. **(SUMMER 2025, 3 Marks; WINTER 2025, 7 Marks OR)**

4. Types of EIA and Players of EIA:

- **Q.** Differentiate between Rapid and Comprehensive EIA. / Give the difference between rapid & comprehensive EIA. / Differentiate between Rapid EIA & Comprehensive EIA. **(SUMMER 2022, 4 Marks; WINTER 2022, 7 Marks; WINTER 2023, 4 Marks; SUMMER 2025, 4 Marks)**
- **Q.** Enlist the players of EIA. Explain any one. / Enlist the key players of the EIA. Explain the role of any two. / Name the players of EIA & explain role of any two player. **(SUMMER 2022, 4 Marks; WINTER 2022, 3 Marks; SUMMER 2025, 4 Marks)**

Other Important Questions:

1. Types and Classification of Impacts:

- **Q.** Differentiate between quantifiable impact and Non-quantifiable impact. **(WINTER 2025, 3 Marks)**
- **Q.** Differentiate between Environmental Impacts and Environmental Effects. **(WINTER 2025, 3 Marks OR)**

Chapter 4: Description of Environment

Repeated Questions:

1. Baseline Study:

- **Q.** What is baseline study? What are the points to be kept in mind while doing baseline study? **(SUMMER 2023, 4 Marks; SUMMER 2024, 4 Marks)**
- **Q.** Define the base line study & discuss the importance of base line study in EIA. / What is Baseline study? What is its importance in EIA? How is baseline study carried out? / What is a Baseline study? How is baseline study conducted? What is its importance in EIA? / Explain purpose, selection of parameters, collection and interpretation of baseline data in baseline study of EIA. / Highlight the importance of baseline monitoring. **(SUMMER 2022, 7 Marks; WINTER 2022, 4 Marks; WINTER 2023, 7 Marks; WINTER 2024, 7 Marks OR; SUMMER 2025, 7 Marks OR; WINTER 2025, 3 Marks)**

2. Environmental Attributes:

- **Q.** Enlist the Environmental Attributes and explain any one. / Write a short note on Environmental attributes. Enlist the Environmental categories and identify relevant environmental attributes under each category. / What are environmental attributes? Enlist the eight categories of attributes and explain anyone. / Define environmental attributes. Mention and explain the three types of attributes with examples. / Write a short note on Environmental Attributes. **(SUMMER 2022, 7 Marks; WINTER 2022, 7 Marks OR; SUMMER 2023, 4 Marks OR; WINTER 2023, 4 Marks; SUMMER 2024, 4 Marks OR; WINTER 2024, 7 Marks; WINTER 2025, 3 Marks OR)**
- **Q.** Define the following terms: Environmental carrying capacity, Environmental attribute, Environmental impact assessment, Environmental impact statement. **(SUMMER 2025, 4 Marks)**
- **Q.** Enlist the environmental components/ attributes likely to be affected by mining project. Explain any one. **(SUMMER 2023, 7 Marks; SUMMER 2024, 7 Marks)**

Other Important Questions:

1. Environmental Attributes:

- **Q.** Name the methods to collect data for water attribute in EIA study. **(SUMMER 2025, 3 Marks OR)**

Chapter 5: EIA Methodologies

Repeated Questions:

1. Checklist Methods:

- **Q.** Explain the different types of Checklist methods for EIA. / List the different types of checklists methods for EIA & briefly explain anyone. / Differentiate between checklist and adhoc methods. / Explain scaling- weighing checklist methods. **(SUMMER 2022, 4 Marks; SUMMER 2023, 3 Marks; SUMMER 2024, 3 Marks; WINTER 2024, 3 Marks; SUMMER 2026, 4 Marks)**

2. Matrix and Network Methods:

- **Q.** Write a note on Matrix methodology. / Explain Leopold matrix method of EIA. / Compare the matrix and network methodologies for EIA. / Critically evaluate the role of subjective judgment in matrix scoring with example and its implications on EIA results. **(SUMMER 2023, 4 Marks OR; WINTER 2023, 3 Marks; SUMMER 2024, 4 Marks OR; SUMMER 2026, 4 Marks OR; SUMMER 2026, 7 Marks OR)**

3. Battelle EES and Value Function Graphs:

- **Q.** Explain Battelle EES method of EIA. / Write a brief note on Battelle Environmental Evaluation system method. **(SUMMER 2023, 7 Marks OR; SUMMER 2024, 7 Marks OR; SUMMER 2026, 7 Marks)**
- **Q.** What is value function graph? Explain its importance in EIA process. / Give the significance of value function graph with example. / Write a detailed note on Value function graphs. Draw graphs of any two parameters. / Write down the significance of value function graph. / What do you understand by "Value function graph"? Draw value function graph for TDS & pH. [Diagram required – refer to the original question paper] **(SUMMER 2022, 3 Marks; WINTER 2022, 4 Marks; SUMMER 2023, 7 Marks; WINTER 2023, 7 Marks; SUMMER 2024, 7 Marks; SUMMER 2025, 7 Marks)**

4. EIA Methods – General and Cost-Benefit Analysis:

- **Q.** Enlist the different methods of EIA and explain any one in detail. / Enlist EIA Methodology. / Prepare a list of EIA methodologies and explain Adhoc method. **(SUMMER 2022, 3 Marks; WINTER 2022, 7 Marks; WINTER 2024, 7 Marks; SUMMER 2025, 7 Marks; WINTER 2025, 3 Marks OR; SUMMER 2026, 3 Marks)**
- **Q.** Write the importance of Environmental Cost Benefit analysis. / Analyze Cost Benefit Analysis to assess the feasibility of a hydroelectric dam project. **(WINTER 2023, 4 Marks; SUMMER 2026, 3 Marks OR)**

Other Important Questions:

1. Matrix and Network Methods:

- **Q.** Write a short note on network method. **(WINTER 2025, 4 Marks OR)**

2. EIA Methods – General and Cost-Benefit Analysis:

- **Q.** Enlist the requirements of a good EIA method. **(WINTER 2023, 4 Marks)**

Chapter 6: Case Studies

Repeated Questions:

1. Construction Projects:

- **Q.** Prepare a checklist of likely environmental impacts for a proposed Construction project. **(SUMMER 2023, 7 Marks OR; SUMMER 2024, 7 Marks OR)**
- **Q.** Discuss Environmental Management Plan for construction Project. **(WINTER 2024, 4 Marks OR; WINTER 2025, 3 Marks)**
- **Q.** State in brief various biological environment impacts of a Construction Project. **(WINTER 2023, 3 Marks)**
- **Q.** Write down the category of construction project fall under EC & classify the impacts caused during construction phase. **(SUMMER 2025, 7 Marks OR)**

2. Mining Projects:

- **Q.** Identify the impacts of Mining activities. / Identify the impacts and Environmental Management plan of Mining. **(WINTER 2024, 3 Marks OR; WINTER 2025, 7 Marks OR)**
- **Q.** Discuss the Environment Management plan for Mining project. **(WINTER 2024, 4 Marks OR)**

3. Chemical Industries:

- **Q.** Identify the impacts during the construction and operation of chemical industries. **(WINTER 2024, 3 Marks)**
- **Q.** Discuss the Environment Management plan for Chemical Industries. **(WINTER 2024, 4 Marks; WINTER 2025, 3 Marks)**

Other Important Questions:

1. Thermal Power Plant:

- **Q.** Discuss the Environment Management plan for Thermal Power Plant. **(WINTER 2025, 7 Marks)**

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