



**B.E DEGREE EXAMINATIONS: APRIL 2015**

(Regulation 2009)

Eighth Semester

**CIVIL ENGINEERING**

CEE209: Environmental Impact Assessment of Civil Engineering Projects

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. EIA stands for
  - a) Environmental Impact Audit
  - b) Ecological Impact Assessment
  - c) Environmental Impact Assessment
  - d) Environmental Impact Area
2. Select best Environmental protection measure
  - a) EIA
  - b) EP
  - c) EA
  - d) ISO
3. Select wrong statement
  - a) EIA Helps in Choosing proper location of project
  - b) EIA is only to obtain clearance from Government
  - c) EIA is an performance measure of industry
  - d) EIA is public document
4. This is not included in Environmental audit
  - a) Storage of toxic chemicals
  - b) Pollution monitoring schemes
  - c) Scrutiny by Government agencies
  - d) Safety provisions for industrial workers
5. First of the major environmental protection acts in India was
  - a) The Water act
  - b) The air act
  - c) Environment act
  - d) Noise Pollution act
6. The primary cause of acid rain in the world is
  - a) Carbon di oxide
  - b) Carbon monoxide
  - c) Sulphur di oxide
  - d) Ozone

7. In quantifying damage EIA considers
- |   |   |
|---|---|
| a) Reversible and Irreversible effects in same category | b) Balance between gains and losses due to various activities |
| c) Adverse effects on human beings                      | d) All pollution monitoring and controlling schemes           |
8. In India major cause of large scale displacement of people is
- |                 |                         |
|-----------------|-------------------------|
| a) Forest Fires | b) Construction of dams |
| c) Earthquakes  | d) Wars                 |
9. State Pollution Control Board's are required to give notice to how many newspapers mentioning date, time and place of public hearing
- |      |      |
|------|------|
| a) 2 | b) 4 |
| c) 6 | d) 8 |
10. In EIA decision to hold hearing has to be made within
- |            |            |
|------------|------------|
| a) 5 days  | b) 10 days |
| c) 15 days | d) 30 days |

**PART B (10 x 2 = 20 Marks)**

11. What are the objectives of Environmental Impact Assessment?
12. How do EIA contribute to Sustainable development?
13. Define EIS.
14. List the objectives of screening in EIA.
15. What are the impacts of projects on flora?
16. Give an example of activity that will adversely affect the water environment.
17. State the significance of public participation in EIA
18. Outline the mitigation measures for land pollution.
19. List the essential components of environment management plan.
20. List two adverse impacts associated with Dam construction

**PART C (5 x 14 = 70 Marks)**

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|--|-----|
| 21. a) (i) Discuss the role of EIA in project cycle                            | (8) |
| (ii) Briefly describe the legal requirements in India regarding EIA            | (6) |
| <b>(OR)</b>  |     |
| b) (i) Explain the steps involved in planning baseline data collection for EIA | (8) |
| (ii) Explain different types of EIA with examples.                             | (6) |

22. a) (i) Explain the different criteria for selecting different EIA methods. (7)  
(ii) Discuss- Scoping is an essential step in EIA process (7)
- (OR)**
- b) (i) Summarize the Leopold matrix method in EIA and highlight its strength and applicability (8)  
(ii) What are the four methodologies used in EIA and explain any one in detail. (6)
23. a) (i) What are the legislative measures to control air pollution (4)  
(ii) Explain a mathematical model to predict the impact of emissions through a stack and detail the data requirements and data source for the application of the model. (10)
- (OR)**
- b) (i) Provide an example each for both positive and adverse environmental impacts of short term and long term duration of projects. (8)  
(ii) What are the typical impacts of development projects on land environment? (6)
24. a) (i) Discuss the role of modeling in prediction and assessment of impacts of water pollution. Give a suitable example. (8)  
(ii) What are the important considerations associated with rehabilitation of Project Affected People. (6)
- (OR)**
- b) (i) Discuss Rapid Impact Assessment Matrix (RIAM) as a tool for comparison of alternatives and decision matrix (8)  
(ii) Discuss the socio-economic impacts due to a highway development (6)
25. a) (i) Present the Terms of Reference for the conduct of EIA of a Highways and Bridges Project (8)  
(ii) What are the significant environmental issues to be considered while planning to develop a New Township? (6)
- (OR)**
- b) (i) List any six adverse impacts of a "Ports and Harbour Project" and suggest appropriate mitigation measures for each (7)  
(ii) List the different sections of a typical EIA Report in its order? What are the methods for review of an EIA Report? (7)

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