

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

M.E DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Second Semester

Environmental Engineering

EV4004- Environmental Impact Assessment

Regulations - 2021

Duration: 3 Hrs

Maximum: 100 Marks

PART – A(ANSWER ALL QUESTIONS) (Marks 10*2=20)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Summarize the historical development of Environmental Impact Assessment.	UN	1	2
2.	Explain the concept of screening in the EIA process.	UN	1	2
3.	Classify the different prediction tools used for assessing environmental impacts in air, water, soil, and noise.	UN	2	2
4.	Compare cost-benefit analysis with the analysis of alternatives in the context of EIA.	UN	2	2
5.	Differentiate between community-level impacts and institutional-level impacts in socio-economic assessments.	UN	3	2
6.	Summarize the key steps involved in conducting a socio-economic impact assessment for a large infrastructure project.	UN	3	2
7.	Compare the roles of policy guidelines and monitoring programs in ensuring the success of an Environmental Management Plan.	UN	4	2
8.	Differentiate between the preparation and implementation phases of an Environmental Management Plan.	UN	4	2
9.	Explain the potential hazards involved in the storage and handling of hazardous chemicals and the safety measures needed to mitigate them.	UN	5	2
10.	Illustrate the environmental challenges faced by the building and construction industry in urban areas, especially in terms of waste generation and resource consumption.	UN	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Find a recent example of a project in India that underwent the EIA process and identify the key environmental concerns addressed. Or	AP	1	13
	b Construct a plan for public hearing within the EIA process for a project in a sensitive ecological zone	AP	1	13
12.	a Use a checklist to prepare an EIA report for a proposed infrastructure project, considering air and water quality impacts. Or	AP	2	13
	b Plan an EIA process using expert systems to assess biological impacts in a proposed urban development.	AP	2	13

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| 13. | a | Prepare a socio-economic rehabilitation plan for a community in transition after a major industrial project leads to significant displacement. | AP | 3 | 13 |
| | | Or | | | |
| | b | Construct a framework to show the relationship between social impacts and changes in educational and healthcare services in a transitioning community. | AP | 3 | 13 |
| 14. | a | Plan a post-project audit to determine the effectiveness of the implemented Environmental Management Plan for a wind farm development. | AP | 4 | 13 |
| | | Or | | | |
| | b | Select appropriate rehabilitation measures to establish ecological balance in an area affected by deforestation due to urban expansion. | AP | 4 | 13 |
| 15. | a | Construct an environmental impact assessment (EIA) report outline for a proposed highway project, including sections on potential ecological impacts and mitigation measures. | AP | 5 | 13 |
| | | Or | | | |
| | b | Select appropriate technologies for Central Effluent Treatment Plants (CETPs) to effectively treat industrial wastewater before discharge. | AP | 5 | 13 |

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>		<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	Identify key factors to show how quality assurance in Environmental Impact Assessments (EIA) influences the success of long-term environmental management.	AP	4	15
		Or			
	b	Develop a risk management plan to address the environmental hazards associated with the storage and handling of hazardous chemicals in an industrial facility.	AP	5	15