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B.Tech DEGREE EXAMINATION, NOVEMBER 2023

Fifth & Seventh Semester

18CEO305T - ENVIRONMENTAL IMPACT ASSESSMENT

(For the candidates admitted during the academic year (2020-2021 & 2021-2022))

Note:

- i. **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.
- ii. **Part - B** and **Part - C** should be answered in answer booklet.

Time: 3 Hours

Max. Marks: 100

PART - A (20 × 1 = 20 Marks)

Answer all Questions

	Marks	BL	CO
1. Eutrophication occurs due to the enrichment of which of these two elements? (A) Sulphur and Carbon (B) Carbon and Nitrogen (C) Nitrogen and Sulphur (D) Nitrogen and Phosphorus	1	2	1
2. Organisms scavenging on dead organism are termed as (A) Producers (B) Consumers (C) Detritivores (D) Heterotrophs	1	1	1
3. Method to measure the human impact on natural capital/ environment is termed as (A) Ecological footprint (B) Ecological succession (C) Ecological niche (D) Sustainable development	1	1	1
4. EIA is necessary because _____. (A) Development is bad for environment (B) It helps in over consumption of resources (C) Environmental impacts of development are of public (D) It is mandatory process	1	1	1
5. Which one of the following best suits the role of environmental clearance process in India? (A) Carry out EIA (B) Supervised by the Proponent (C) Decides whether EIA is required or not (D) Evaluates and approves the Proposal	1	2	2
6. Environmental protection act was implemented in (A) 1966 (B) 1976 (C) 1986 (D) 1996	1	1	2
7. The process of enhancement in pollutants through different organisms is called (A) Bio-Synthesis (B) Bio-refinement (C) Eco-Pollution (D) Bio-accumulation	1	2	2
8. Major difference between EIA and ERA is the absence of _____. (A) Mitigation measures (B) Impact assessment (C) Impact prediction (D) Public participation	1	2	2
9. _____ model is based on the assumption that pollutant emitted is uniformly mixed (A) Mass balance (B) Box (C) Air quality dispersion (D) Air Quality Index	1	1	3

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|--|---|---|---|
| 10. Among the following statement which one best describes the deterioration of Groundwater quality of an area? | 1 | 2 | 3 |
| (A) Infiltration of leachate from solid waste | | | |
| (B) Infiltration from surface water runoff | | | |
| (C) Evaporation of soil pore water | | | |
| (D) Interaction of plant roots with soil water | | | |
| 11. Fill in the Arnstein's ladder of Public Involvement: Manipulation, Therapy, Information, Consultation, Placation, _____, Delegated Power, Citizen control. | 1 | 1 | 3 |
| (A) Internship | | | |
| (B) Fellowship | | | |
| (C) Partnership | | | |
| (D) Scholarship | | | |
| 12. Expert system involves: | 1 | 1 | 3 |
| (A) Group of experts conducting EIA process | | | |
| (B) Knowledge based software | | | |
| (C) Governmental official reviewing EIA process | | | |
| (D) Group of environmental experts | | | |
| 13. The method used for conducting EIA process should not be _____. | 1 | 1 | 4 |
| (A) Vague | | | |
| (B) Simple | | | |
| (C) Systematic | | | |
| (D) Organised | | | |
| 14. One of the major disadvantages of Checklist method is: | 1 | 2 | 4 |
| (A) It's preparatory stage in matrix assessment | | | |
| (B) It does not identify higher order impacts | | | |
| (C) It's interdisciplinary nature | | | |
| (D) Simple to use | | | |
| 15. Screening is done to -----. | 1 | 1 | 4 |
| (A) Understand the impact of project | | | |
| (B) Assess the quality of the project design | | | |
| (C) Disseminate the decisions to public | | | |
| (D) Determine whether a full EIA needed | | | |
| 16. During suggestion of alternative, The impact caused by alternative is _____. | 1 | 1 | 4 |
| (A) Ignored | | | |
| (B) Considered | | | |
| (C) Omitted | | | |
| (D) Not included | | | |
| 17. Which of the following is non point source of pollution in surface water environment? | 1 | 1 | 5 |
| (A) Discharge of Industrial Effluent | | | |
| (B) Discharge of treatment plant effluent | | | |
| (C) Discharge from domestic sewers | | | |
| (D) Discharge through agricultural runoff | | | |
| 18. E-waste generated from small household appliances consists more amount of _____. | 1 | 1 | 5 |
| (A) Ferrous metals | | | |
| (B) Non-ferrous metals | | | |
| (C) Plastics | | | |
| (D) Glass | | | |
| 19. Which environmental principle best reflects the intent of EIA? | 1 | 2 | 5 |
| (A) Polluter pays | | | |
| (B) Prevention is better than cure | | | |
| (C) Reduce reuse recycle | | | |
| (D) Reduce and reuse | | | |
| 20. The most common pollutant released from Textile industry is _____. | 1 | 2 | 5 |
| (A) Metals | | | |
| (B) Dyes | | | |
| (C) Nutrients | | | |
| (D) Water | | | |

PART - B (5 × 4 = 20 Marks)

Answer **any 5** Questions

Marks BL CO

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|---|---|---|---|
| 21. Distinguish between Rapid Environmental Impact assessment and Comprehensive Environmental Impact Assessment | 4 | 4 | 1 |
|---|---|---|---|

Explain briefly the evolution of Environmental Impact Assessment	4	2	2
Explain the steps involved in prediction and assessment of Impact caused due to a textile industry in a riverine system	4	3	3
24. What are alternatives? How they are important in EIA process?	4	4	4
25. Write a note on any two Man made disasters in India.	4	1	5
26. Write short notes on 'Ecological Succession'	4	1	1
27. Write short notes on Cost benefit analysis.	4	2	4

PART - C (5 × 12 = 60 Marks)

Answer all Questions

Marks BL CO

28. (a) Explain in detail with neat a sketch on the natural and anthropogenic impact of nitrogen cycle.	12	1	1
(OR)			
(b) Explain in detail, the natural and anthropogenic impact of Phosphorous cycle with a neat sketch.			
29. (a) With a neat sketch, explain generic steps in EIA process.	12	2	2
(OR)			
(b) Elaborate on "World bank environmental agenda".			
30. (a) Explain in detail the "Assessment and prediction of impacts on Groundwater environment".	12	3	3
(OR)			
(b) Explain in detail the 'Assessment and prediction of impacts on biological environment'.			
31. (a) Explain in detail application and significance of Leopold matrix in impact prediction and assessment.	12	3	4
(OR)			
(b) Explain in detail application of Network method in impact prediction and assessment.			
32. (a) Explain with a case study, the steps involved in conducting an impact assessment for a thermal power plant.	12	1	5
(OR)			
(b) Explain with a case study, the steps involved in conducting an impact assessment for a solid waste disposal yard.			

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