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**Question Paper Code : 91023**

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022

Seventh/Ninth Semester

Aeronautical Engineering

OCE 751 – ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

(Common to : Aerospace Engineering/ Agriculture Engineering/ Automobile Engineering/ Biomedical Engineering/ Computer Science and Engineering/ Computer and Communication Engineering/ Electronics and Communication Engineering/ Electronics and Telecommunication Engineering/ Environmental Engineering/ Geoinformatics Engineering/ Industrial Engineering/ Industrial Engineering and Management/ Manufacturing Engineering/ Marine Engineering/ Material Science and Engineering/ Mechanical Engineering/ Mechanical Engineering (Sandwich)/ Mechanical and Automation Engineering/ Mechatronics Engineering/ Medical Electronics/ Petrochemical Engineering/ Production Engineering/ Robotics and Automation/ Bio Technology/ Chemical Engineering/ Chemical and Electrochemical Engineering/ Fashion Technology/ Food Technology/ Handloom and Textile Technology/ Information Technology/ Petrochemical Technology/ Petroleum Engineering/ Pharmaceutical Technology/ Textile Chemistry/ Textile Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List out the need for EIA.
2. Define sustainable development.
3. What are important elements of EIA?
4. Draw the conceptual frame work for screening and scoping.
5. What is Life cycle assessment?
6. State the non point sources of water pollution.
7. Define short term and long term impacts.

8. What do you understand by the term cost benefit?
9. What are the ways to mitigate noise due to transport projects?
10. Define MRTS.

PART B — (5 × 13 = 65 marks)

11. (a) Describe the various steps involved in planning the baseline data collection for EIA.

Or

- (b) Explain the evolution of EIA in detail.

12. (a) Describe the checklist for EIS preparation of impact on flora and fauna.

Or

- (b) Discuss in detail about interaction matrix in EIA methodology.

13. (a) Explain the preparation of Environmental Management plan for a hydro electric power project.

Or

- (b) Explain the role of public participation in EIA process in various developmental projects with examples.

14. (a) Explain the various types of Socio-economic impacts in detail.

Or

- (b) Describe the economic evaluation of impact of development on vegetation and wild life.

15. (a) List out the adverse impacts of a "Irrigation Project" and suggest appropriate mitigation measures for each of them.

Or

- (b) Describe in detail Biological and Socio-economic environment impacts of large thermal power plant projects.

PART C — (1 × 15 = 15 marks)

16. (a) Discuss mechanisms by which the EIA process could be applied to government and federal policies and programmes.

Or

- (b) Review the current positive and negative environmental impacts of the widening of roads and four lane highway projects in Tamilnadu.