

Code No: **RT42012B**

**R13**

**Set No. 1**

**IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2019**  
**ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT**  
**(Civil Engineering)**

**Time: 3 hours**

**Max. Marks: 70**

*Question paper consists of Part-A and Part-B*

*Answer ALL sub questions from Part-A*

*Answer any THREE questions from Part-B*

\*\*\*\*\*

**PART-A (22 Marks)**

1. a) What is EIA? Explain. [4]
- b) Enumerate the EIA methodologies and explain the factors to keep in mind in selecting the methodology. [3]
- c) Discuss the mitigation measures for soil and groundwater impacts. [3]
- d) Explain the different steps of a proposed model for EIA study on air environment with the help of a schematic diagram. [4]
- e) What are the key stages in performing Risk Management? [4]
- f) Describe the process of Audit protocol. [4]

**PART-B (3x16 = 48 Marks)**

2. a) Describe systematic approach for using EIA as a planning tool for major Project activities in brief. [8]
- b) What are the basic concepts of EIA? [8]
3. a) Explain the different characteristics that the impact evaluation methods should have. [8]
- b) Describe the elements of EIA. [8]
4. a) Write a detailed note on identification of activities which will have different types of impacts on soil and ground water Quantity and Quality. [8]
- b) Discuss about methodologies for identification of potential environmental impacts of typical engineering projects. [8]
5. a) Describe the environmental effects on surface water. [8]
- b) Explain stepwise how do you predict and assess impacts in the Air environment. [8]
6. a) Write about the concept of ISO and ISO14000 in detail. [8]
- b) Explain the Box-model approaches for prediction of various environmental impacts for Engineering projects. [8]
7. a) Describe different sources of air pollution. [8]
- b) Explain the Mass balance approach for prediction of environmental impacts of engineering projects. [8]

Code No: **RT42012B**

**R13**

**Set No. 2**

**IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2019**  
**ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT**  
**(Automobile Engineering)**

**Time: 3 hours**

**Max. Marks: 70**

*Question paper consists of Part-A and Part-B*

*Answer ALL sub questions from Part-A*

*Answer any THREE questions from Part-B*

\*\*\*\*\*

**PART-A (22 Marks)**

1. a) What are the objectives of Environmental Impact Assessment (EIA)? [4]
- b) Distinguish the scope of "Rapid EIA" and "Cumulative EIA". [3]
- c) Provide an example of an activity that can adversely impact the air environment and suggest an appropriate mitigation action. [3]
- d) What are the limitations of using Check List methods in EIA? [4]
- e) What are the requirements regarding public hearing? [4]
- f) What is the purpose of post Environmental Audit? [4]

**PART-B (3x16 = 48 Marks)**

2. a) Describe possible changes in the environment by various project activities. [8]
- b) Describe the preparation of Environmental Base map. [8]
3. a) Describe matrix method in detail [8]
- b) Discuss objectives, merits and demerits of EIA. [8]
4. a) Write a detailed note on Direct land use impacts. [8]
- b) What are the various environmental indicators and indices? Explain the environmental indices for air quality description. [8]
5. a) Explain various developmental activities which cause significant impact on surface water resources. [8]
- b) Describe the mitigation measures for surface water environment impact. [8]
6. a) What do you mean by bio diversity? Explain the different components of Biological Diversity. [8]
- b) Explain the battle environmental evaluation system for assessment of impacts with suitable examples. [8]
7. a) Write a detailed note on generalized approach for assessment of air pollution Impact. [8]
- b) What is EMP? What are measures employed for mitigation of adverse environment? [8]

Code No: RT42012B

**R13**

**Set No. 3**

**IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2019**  
**ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT**

**(Automobile Engineering)**

**Time: 3 hours**

**Max. Marks: 70**

*Question paper consists of Part-A and Part-B*

*Answer ALL sub questions from Part-A*

*Answer any THREE questions from Part-B*

\*\*\*\*\*

**PART-A (22 Marks)**

1. a) What is the practice in India for Quality Assurance of Environmental Impact Assessment (EIA)? [4]
- b) How do EIA contribute to sustainable development? [3]
- c) What is the purpose of screening in EIA? [3]
- d) Describe the classification of developmental projects in India for the purpose of Environmental Clearance. [4]
- e) List the essential components of an Environmental Management Plan. [4]
- f) What are the objectives of Environmental Legislation? [4]

**PART-B (3x16 = 48 Marks)**

2. a) Give a brief account on cost benefit analysis of EIA. [8]
- b) Discuss about the need of EIA for Engineering projects. [8]
3. a) List out different EIA methods and Explain Ad-hoc methods in detail. [8]
- b) Write about the application of remote sensing and GIS for EIA. [8]
4. a) Discuss about environmental indices for water and air quality. [8]
- b) Explain the various steps in preparing of EIA report. [8]
5. a) Draw the schematic diagram for conceptual approach to the study focused on surface water Environment impacts. [8]
- b) Write a detailed note on 'compilation of water Quantity-Quality information. [8]
6. a) Describe the systematic approach for evaluating biological impacts. [8]
- b) How do you estimate the impact of a given heavy industry on air, water and land environment? [8]
7. a) Explain Battle environmental Evaluation system. Discuss in detail the issues involved for assessment of impact. [8]
- b) What is EMP? What are measures employed for mitigation of adverse environment? [8]

Code No: RT42012B

**R13**

**Set No. 4**

**IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2019**  
**ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT**

**(Automobile Engineering)**

**Time: 3 hours**

**Max. Marks: 70**

*Question paper consists of Part-A and Part-B*

*Answer ALL sub questions from Part-A*

*Answer any THREE questions from Part-B*

\*\*\*\*\*

**PART-A (22 Marks)**

1. a) What is the role of Stake holders in EIA preparation? [4]  
b) What is the Criteria for selection of EIA Methodology? [3]  
c) How GIS is useful for EIA? [3]  
d) Suggest the mitigation options for noise pollution. [4]  
e) What are the generic impacts of projects on flora and fauna? [4]  
f) What are the Post Audit Activities? [4]

**PART-B (3x16 = 48 Marks)**

2. a) What is EIA? Explain. [8]  
b) Discuss objectives, merits and demerits of EIA. [8]
3. a) Describe Environmental media Quality Index method in detail. [8]  
b) Describe the EIA methodologies. [8]
4. a) Discuss the mitigation measures for soil and groundwater impacts. [8]  
b) Explain the various steps in preparing of EIA report. [8]
5. a) Write a detailed note on identification of surface water Quantity or Quality impacts. [8]  
b) Explain the Box-model approaches for prediction of various environmental impacts for engineering projects. [8]
6. a) Differentiate between deforestation and forest degradation. [8]  
b) Explain the common causes of deforestation around the world. [8]
7. a) Explain the different steps of a proposed model for EIA study on air environment with the help of a schematic diagram. [8]  
b) Discuss evaluation of audit data and preparation of Audit report. [8]