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## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

**Eighth Semester, B.E. - Civil Engineering**

**Semester End Examination; Aug. / Sep. - 2020**

**Environmental Impact Assessment**

Time: 3 hrs

Max. Marks: 100

*Note: i) Answer TWO full questions, selecting ONE full question from UNIT - I and UNIT - II.  
ii) Answer any THREE full questions, choosing from UNIT - III, UNIT - IV and UNIT - V.*

### UNIT - I

- 1 a. Citing suitable example write a note on the purpose and benefits of EIA studies for a project. 8
- b. With examples discuss : 6
  - i) REIA
  - ii) CEIA
  - iii) SEIA
- c. Illustrate the guidelines for conducting EIA of a developmental project with reference to Council on Environmental Quality (CEQ). 6

**OR**

- 2 a. Draw and explain the flow diagram of carrying out EIA and Environmental Impact Statement (EIS). 8
- b. Explain the importance of framework during EIA with its merits and demerits. 6
- c. Comment on various levels of processing a draft EIS before preparing final EIS. 6

### UNIT - II

- 3 a. List various environmental parameters that are of importance while conducting EIA. Explain Air environment in detail. 8
- b. With example, explain the checklist method for conducting EIA with its limitations. 8
- c. Comment on the importance of "resources" to be considered while conducting EIA studies. 4

**OR**

- 4 a. Illustrate the significance and their effect of following environmental attributes : 9
  - i) Water
  - ii) Ecology
  - iii) Sound
- b. Narrating with an example, explain matrix method of EIA. 6
- c. Write a note on overlay method of conducting EIA with its advantages and disadvantages. 5

### UNIT - III

- 5 a. List various quality parameters that affect water due to project while assessing predicting impact. 10
- b. Comment on the Noise environment with reference to source effects and mitigation measures while predicting and assessing impacts. 10

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- 6 a. Explain the consequences of predicting and assessing impact on :
- |                       |                        |    |
|-----------------------|------------------------|----|
| i) Particulate matter | ii) Non-reacting gases | 12 |
| iii) Sulphur oxides   | iv) Hydro carbons      |    |
- b. Discuss the impact of transportation system on the components of air environment. 8

#### UNIT - IV

- 7 a. Discuss the various steps involved in assessment and prediction of impact on soil and geological condition of the location. 8
- b. Explain the objectives of involving public participation in conducting EIA with its pros and cons. 6
- c. Comment on the mitigative measures that are to be considered while predicting impacts on sand environment. 6
- 8 a. Write a note on scope of public participation in EIA. Also explain various techniques that can be adopted for public participation. 8
- b. Explain the steps involved in prediction and assessment of Impact on Socio-economic component. 8
- c. Discuss the practical considerations of importance during EIS. 4

#### UNIT - V

9. Conduct environmental impact assessment for a water resource project using checklist method. 20
10. Explain various data of importance for conducting EIA of a mining project by "overlay" method. 20

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