

**JK Lakshmipat University Jaipur**  
**INSTITUTE OF ENGINEERING AND TECHNOLOGY**

End Term Examination, May, 2019

M. Tech. in Health, Safety and Environmental Engineering Semester II

Roll No.....

MTHSE201 : EIA and Environmental Auditing

Time: 3 hours

Max. Marks: 80

**Instructions to students:**

1. Do not write anything other than your roll number on question paper.
2. Assume suitable data wherever required and mention it clearly.
3. Writing appropriate units, nomenclature, and drawing neat sketches/schematics/ flow chart wherever, required are an integral part of the answer.
4. Question Paper consists of FOUR parts (**Part-A, Part-B, Part-C & Part-D**)
5. Answer ALL the question in Part-A and Part-B
6. Answer any SIX Questions from Part-C and any TWO Question from Part-D

**PART-A (01 marks from i-vi & 02 marks each from vii-viii)**

1.(i) Environment Impact Assessment (EIA) is mandatory under which Indian legislations

.....

(ii) Expert committee constituted for screening, scoping and appraisal at the state level is

.....

(iii) According to EIA Act 2006, category A projects requires environment clearance from \_\_\_\_\_  
and Category B projects requires environment clearance from \_\_\_\_\_

(iv) In EIA Process the Pertinent Institutional Information refers to.....

(v) Federal Environmental law, often called the "Magna Carta" is.....

(vi) Meeting the needs of the present without compromising the ability of future generation to meet their  
'own need' is given by.....

(vii) Define role of NGT.

(viii) List out the key points of Agenda 21 of Earth Summit (UNCED).

**PART-B (2.5 Marks each)**

2. (i) Draw the framework for screening in EIA. Write down the outcomes of screening process.

(ii) How can a hydroelectric dam project affect the ecology of an area?

(iii) Why you need to collect the baseline information for an EIA Study for a particular project?

(iv) Differentiate between Structural and Non-structural measures of Impact mitigation.

**PART-C (05 Mark each)**

3. Analyze in detail the typical parameters to be taken into account in impact prediction and decision-making process while conducting an EIA for a particular project.
4. Discuss the significance of Terms of Reference (TOR) in EIA Process. Enlist the items those can be referring in the preparation of TOR for a full EIA.
5. Assessing social impacts is the most tedious task in the EIA of a project. Discuss.
6. Analyze the socio-economic impacts due to a highway development project in a medium sized city in India.
7. Discuss two “Environmental Auditing types” for an industrial plant being established in sub-urban area of a metro city.
8. Correct the order of environmental audit methodology (objective & mandate, EMS, performance reporting, funding & budget, strategy analysis, internal control) used for residential projects, and justify order.
9. Apply the various approaches to achieve the objectives of mitigation depending upon the timing of project cycle and nature of project.
10. Draw neat sketches and list activities for preparing an environmental management plan of Dravyavati river (Amani Shah Nallah) flowing through Jaipur city.

**PART-D (10 Mark each)**

11. Identify and analyze the Potential Environmental Impacts of any two of the industries listed below:
  - i. Oil Industry
  - ii. Petrochemical Industry
  - iii. Iron and Steel Industry
  - iv. Fertilizer Industry
  - v. Sugar Industry
  - vi. Distillery plant
  - vii. Road/Highway project
  - viii. Project of Dam
  - ix. Housing project
12. Draw flow chart the Procedural framework of Environmental clearance process in India and identify the challenges in implementing the same.

**13. Read the following case and answer the questions:**

An important mining company has been operating for about 4 yrs in a coastal region. The mining activity of this company is very intense. This company has effectively implemented its EMP with great success, mitigating the environmental impacts caused by this activity. Up to date the results of the environmental auditory show up that this company completely fulfils all the legal requirements, laws and environmental standards established by the authorities. Since 1 year this company is part of a trial against the community, which argues that after the company has started its mining activity in the zone, the quality of the water has been significantly deteriorated and that this company is operating in a protected area. The Company argues that it has relevant proofs in order to demonstrate that they have not polluted the environment but the others industries located in the zone. The mining company emphasizes that when they began the activities the environment was already polluted specially the water and that the quality standards of the water were not good at all.

- a. What document the mining company must present in the trial in order to demonstrate its argument that the environmental quality was already deteriorate before their activities began in the zone. Why is this document so important?
- b. What are the key environmental permits required in relation to mining operations?
- c. Mention two environmental impacts this company might cause into the environment.
- d. Mention two ways to mitigate this impacts that should be included.

