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CE 1817 OE 12

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Roll No. of candidate

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2022

B.Tech. 7th Semester End-Term Examination

Civil Engineering

ENVIRONMENTAL IMPACT ASSESSMENT

New Regulation (w.e.f 2017-18) &

(New Syllabus (w.e.f 2018-19))

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer question No. 1 and any *four* from the rest.

1. Write the correct answer : (10 × 1 = 10)

(i) EIA is study of probable change in socio economic and _____ characteristics of environment due to proposed action.

(a) biophysical (b) geological

(c) hydrological (d) potential

(ii) EIA is based on which of the following parameters?

(a) Demography, natural and cultural landscape, cultural heritage, ambient air quality, local climate, soil and water quality, fauna and flora

(b) EIA studies the status and future of forest wealth, soil erosion, flood control, microclimate, rehabilitation and resettlement, and public health

(c) Population census survey of the community surrounding a project area

(d) None of the above

[Turn over

- (iii) If you want to show the land use and land cover changes before and after a developmental project, which of the following is a suitable method
- (a) Matrix Method
 - (b) Geographic information system
 - (c) Ad hoc method
 - (d) Network method
- (iv) For identification of impacts and determination on the basis magnitude and importance, which of the following methods is appropriate for EIA?
- (a) Ad hoc method
 - (b) Geographic information system
 - (c) Matrix Method
 - (d) Network method
- (v) State level Expert Appraisal Committee (SEAC) determining whether or not the project or activity requires further environmental studies for preparation of an Environmental Impact Assessment (EIA) is a part of
- (a) Stage (1) Screening
 - (b) Stage (2) Scoping
 - (c) Stage (3) Public Consultation
 - (d) Stage (4) Appraisal
- (vi) Scoping is procedure of ——— environmental issues.
- (a) identifying
 - (b) impact
 - (c) physical impact
 - (d) attributes
- (vii) The key focus areas of Mitigation measures should include (select all that apply)
- (a) Preventive measures that avoid the occurrence of impacts and thus avoid harm or even produce positive outcomes
 - (b) Measures that focus on limiting or lessening the severity and the duration of the impacts
 - (c) The identification of compensation mechanisms for those impacts that are unavoidable and cannot be reduced further
 - (d) None of the above

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(viii) A core part of Impact Management is developing an EMP – environmental management plan. Please indicate which items from the list below is not contents of the EMP.

- (a) Mitigation
- (b) Monitoring
- (c) Capacity Development
- (d) Implementation Schedule and Cost Estimates
- (e) Contingency plans
- (f) TOR

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(ix) What kind of monitoring is referred to when we speak of monitoring a development project (select all that apply)

- (a) Monitoring indicators that measure the impacts on the environment and communities as a result of the development project
- (b) Ensuring the fulfillment of all the commitments made in the approved ETA
- (c) Keeping track of changes that may happen in the environment and communities because of the project and other local and/or global changes, such as changes in livelihoods due to economic crisis or migration, differences in water availability due to drought, etc.
- (d) Keeping track of the political context, to ensure that the project retains its licence

(x) Public hearing to ascertain the views of local people and _____

- (a) obtaining oral responses of interested parties
- (b) finalise the date, time and exact venue
- (c) obtaining written responses of interested parties
- (d) expansion of roads and highways, modernization of irrigation projects

2. Answer any *four* from the following : (4 × 15 = 60)

- (a) What are the objectives behind EIA studies? Mention the various procedures followed for EIA studies What is scoping and why scoping is important in EIA studies. Discuss briefly the importance of baseline data collection in impact assessment studies. (3+3+6+3=15)

- (b) Enlist the important methodologies of utility for assessing the impacts of developmental activities on the environment. How Networks methods are useful for EIA studies? Mention any three limitations of Network Method. Discuss the merits and demerits of Checklist methods? (2+4+3+6=15)
- (c) Classify the major sources of Air pollution. What are the different effects of air pollution on environment? Discuss the generalized Approach for Assessment of Air Pollution Impact. (3+3+9=15)
- (d) What is an environment audit? What are its objectives? Write the various benefits of an environmental audit, What are the various steps involved in the preparation an audit report? (2+3+4+6=15)
- (e) Prepare an outline of requirements for the EIA report for construction of either hydroelectric power project or Nuclear power plant.(Any one). (15)
- (f) What are the main sources of solid waste? Mention different categories of solid waste. Draw a flowchart to show various steps in solid waste management. Discuss any three Methods of solid waste disposal and management. (3+3+3+6=15)
- (g) Write short notes on (any three) : (3 × 5 = 15)
- (i) Objectives of environmental policy
 - (ii) Screening
 - (iii) Kyoto Protocol and Clean Development Mechanism (CDM)
 - (iv) OHSAS 18001
 - (v) Green city

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