

## Bachelor of Civil Engineering Examination 2019 (Old)

(4<sup>th</sup> Year 1st semester)

### Ecology and Environmental Management

Time: Three Hours

Full Marks: 100

Use separate answer script for each part

(50 marks for each part)

#### Part-1

Answer **Question No. 1** and any **Two** from the rest. Answers should be brief. **Please answer Question No. 1 first.**

1. a) Define sustainable development.
- b) Mention the year when EIA was started first in India (administratively).
- c) Write the name of the ministry of Government of India who initiated EIA.
- d) Mention the specific date for first legal notification of EIA.
- e) Whom the applications for Environmental Clearance (EC) are to be made?
- f) Give an example of screening based on nature of activity.
- g) Mention the steps *between* planning of a project and application for its EC.
- h) Why are models essential for EIA studies?
- i) What should be the *validity* of ToR for an EIA study?
- j) What is the similarity between LCA and EIA?
- k) Name the designation of the member of SEIAA who is a serving officer of the concerned State Government or the Union territory administration.
- l) Name the screening committee for B category projects. Also mention the Scoping Committee for A category projects.

**Bachelor of Civil Engineering Examination 2019 (Old)**(4<sup>th</sup> Year 1st semester)**Ecology and Environmental Management (ELEC-1)**

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1 (Contnd.)

- m) Write the full forms of (i) E(P)A (ii) MoEFCC.
- n) When is pre-feasibility project report required to be submitted by the proponent?
- o) Give example of a category A project, where the EIA process may have only two stages.
- p) What is the time limit for conveying ToR to the proponent?
- q) Where is the procedure for conduct of public hearing given in EIA notification?
- r) How are the B2 projects appraised?
- s) Is Environmental Clearance (EC) transferable?
- t) "All stand alone grinding units are of B category"-name the project or activity. 1x20=20

2. a) Mention threshold limits related with EIA for

- (i) Mining of minerals
- (ii) Thermal Power Plants
- (iii) Chlor-alkali Industry

b) Mention the 'General Condition'. Comment about its leniency.

c) Write about the application procedure for EC. 6+6+3=15

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3. a) Draw a flow chart showing EC procedure for a residential project.  
b) Describe 'Specific Condition' with an example.  
c) Write a brief note on TOR.  
d) Give examples of two projects for which Public Consultation is not needed 5+4+4+2=15
4. a) 'Maximum time period may be required to get EC by the proponent is 195 days from date of submission of final EIA report'-explain.  
b) Describe briefly the procedure of Public Consultation.  
c) Describe the importance of following in an EIA study:  
(i) background concentration (ii) air, water and noise quality standards (iii) post monitoring 4+5+6=15

## BACHELOR OF CIVIL ENGINEERING 4TH YEAR EXAMINATION, 2019

1<sup>st</sup>-Semester (Old)

SUBJECT: Ecology &amp; Environmental Management

Time: Three hours

Full Marks 100  
(50 marks for each part)

Use a separate Answer-Script for each part

No. of Questions	Part II	Marks
	<b>Answer question number 1 (compulsory) and any three from the rest. Assume any data if not provided.</b>	
Q1.	<b>Write Short Note on (Any Four)</b> i) Factors affecting ecosystem ii) Lentic environment iii) Productivity of plant iv) Ecological pyramid v) Conventional energy flow model	5×4=20
Q2.	Define: biomagnification, eutrophication, detritus food chain, population ecology, autotrophs	2×5
Q3.	With an example of an ideal ecosystem describe the major components with examples of each component. With an example define natural subsidized solar power ecosystem.	8+2
Q4.	What is the use of life table? What are the nutrients responsible for the eutrophication? What is biogeochemical cycle? Write the reservoir pool and cycling pool in association with biogeochemical cycle of nitrogen.	2×5
Q5.a)	Define Simpson Index in association with determination of diversity with equations and corresponding values. What is Food web?	3×2
b)	Write four factors affecting ecosystem.	4
Q6.	With neat labeled sketch explain J shaped growth form of population. What is the adverse impact of immigration on an ecosystem? With a neat sketch explain age structure of India.	5+2+3