

**Bachelor of Civil Engineering Supplementary Examination 2018 (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) 'Environmental Impact Assessment (EIA) is recognised as a key support tool for sustainable development'-explain.
- b) When and under which act was Environmental Impact Assessment (EIA) legally introduced in India?
- c) 'EIA cannot be done without the help of mathematical models'-explain.
- d) What are the differences between EIA and Environmental Audits?
- e) Name the Appraisal Committee for B<sub>2</sub> category project. Also mention the Scoping Committee for A category project.
- f) Give examples of type of project for which EIA has (i) two stages (ii) three stages.
- g) Describe the method of appraisal of B<sub>2</sub> projects.
- h) Comment about validity of EC.
- i) Define background concentration.
- J) Mention about limitations of Indian EIA methods

2X10=20

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2. a) Write the General Conditions of the Schedule of EIA notification and comment about its leniency.  
b) Draw a flow chart showing EC procedure for a proposed project.  
c) Write in details the application procedure for getting EC for a proposed project

6+5+4=15

3. a) 'Screening of projects can be done based on their nature, scale and location.'- explain with examples  
b) Mention threshold limits related with EIA for  
(i) River Valley projects  
(ii) Thermal Power Plants  
(iii) Chemical fertilizers

6+9=15

4. a) Write about 'Specific Condition (SC)' of 'Schedule'. Give specific examples from Schedule.  
b) What is 'public consultation'? What is its significance?  
c) Write about the time period of grant and rejection of EC.

5+5+5=15

## BACHELOR OF CIVIL ENGINEERING 4TH YEAR EXAMINATION, 2018

(1<sup>st</sup>-Semester Supplementary (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) Classification of ecology ii) Lotic environment iii) Productivity of plant iv) Ecological pyramid v) Y shaped energy flow model	5×4=20
Q2.	Define: biomagnification, ecological niche, food chain, autecology, carrying capacity	2×5
Q3.	Considering pond as an ideal ecosystem describe the major components with examples. With an example define natural unsubsidized solar power ecosystem.	8+2
Q4.	What is eutrophication? 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 any of the nutrients responsible for the eutrophication.	2×5
Q5.a)	Define Simpson Index and Shannon Index in association with determination of diversity with their equations and values.	3×2
b)	Write four factors affecting ecosystem.	4
Q6.	With neat labeled sketch explain S shaped growth form of population. What is emigration? With a neat sketch explain expanding age structure of human population.	5+2+3