

**Bachelor of Civil Engineering Supplementary Examination 2017**

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

**Ecology and Environmental Management (ELEC-1)**

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) Describe the history of legal introduction of Environmental Impact Assessment (EIA) in India.
  - b) Mention the regulatory authorities who can give Environmental Clearance (EC) in India.
  - c) 'EIA cannot be done without the help of mathematical models'-explain.
  - d) Compare EIA and Environmental Audit.
  - e) Name the screening committee for B category projects. Also mention the scoping committee for A category projects.
  - f) Give examples of project for which EIA has (i) two stages (ii) four stages.
  - g) Describe the method of appraisal of B<sub>2</sub> projects.
  - h) Comment about transferability of EC.
  - i) Define background concentration.
  - j) Mention about limitations of EIA.

2X10=20

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2. a) Write the General Conditions of the Schedule of EIA notification and comment about its leniency.  
b) Write about Specific Condition of the Schedule of EIA notification with a specific example.  
c) Give examples of two projects which are always (i) 'A' category project (ii) 'B' category project.
- 6+5+4=15
3. a) Write in details the application procedure for getting EC for a proposed project  
b) Draw a flow chart showing EC procedure for a proposed project.  
c) 'Screening of projects can be done based on their nature, scale and location.' - explain with example
- 4+6+5=15
4. a) Write details of scoping stage including its significance, basis and validity of ToR etc.  
b) What is 'public consultation'? What is its significance?  
c) Write about the time period of grant and rejection of EC.
- 6+5+4=15
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BACHELOR OF CIVIL ENGINEERING 4TH YEAR EXAMINATION, 2017  
(1<sup>st</sup>-Semester Supplementary)  
SUBJECT: Ecology & 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>Differentiate between</b> i) Ecology and ecosystem ii) Autecology and synecology iii) Lotic environment and lentic environment iv) Food chain and food web v) Immigration and migration of population dispersal	4×5=20
Q2.	Considering pond as an example describe the four basic components of an ecosystem with examples. What do you mean by primary productivity of an ecological cycle?	8+2
Q3.	With a neat sketch describe the basic components of a 'Universal energy flow model'. With example write the energy based classification of ecosystem.	6+4
Q4.a)	With neat sketch and suitable example describe the importance of ecological pyramid in the study of ecology.	6
b)	Write the name and applicability of two indices used to describe the ecosystem diversity.	2×2
Q5.a)	With a neat leveled sketch describe different components and their significance of Phosphorus cycle.	6
b)	Write two basic factors affecting ecosystem.	2
c)	Write two basic characteristics of ecology of population.	2