

B.E.C.E. 4th YEAR EXAMINATION, 20251ST SEMESTER**SUBJECT: Ecology and Environmental Management**

TIME: THREE HOURS

FULL MARKS:100

USE A SEPARATE ANSWER-SCRIPT FOR EACH PART

No. of Questions	Part-I (Full Marks 50)	Marks
	Answer all the questions. Answer should be brief and to the point. Use pencil for any sketch. Assume any relevant data if not provided. Abbreviations have their usual meanings. <u>Section-A (CO-1)</u> Q1.(a) State the importance (at least 3) of reading 'Ecology' as Civil Engineer. Define biomagnification. (b) With example differentiate between: (i) autecology and synecology; (ii) lentic ecosystem and lotic ecosystem; (iii) grazing food chain and detritus food chain; (iv) estuary and wetland. (c) Write example of (i) inverted ecological pyramid; (ii) incomplete ecosystem; (iii) Natural solar power ecosystems subsidized by other natural energies. Q2. (a) With neat sketch discuss ecological web. (b) With example of an 'ideal ecosystem' describe different components of ecosystem. <u>Section-B (Related CO2)</u> Q3. (a) With examples define gaseous and sedimentary biogeochemical cycles. (b) With neat sketch discuss reservoir pool and cycling pool in relation with phosphorus cycle. Q4. (a) For a particular population, why emigration is most preferred than immigration? (b) Differentiate between age structure of Bangladesh and UK with neat sketch. (c) Discuss density dependent regulation of a population stating different factors. (d) Explain carrying capacity in relation with S population growth curve.	3+2 3 × 4 1 × 3 4 6 2×3 4 2 3 3 2

B.E. CIVIL ENGINEERING FOURTH YEAR FIRST SEMESTER - 2025

SUBJECT: ECOLOGY AND ENVIRONMENTAL MANAGEMENT

Time : 3 hours

Full Marks: 100

(50 marks for each part)

Use a separate Answer-Script for each part

No.	Part-II	Marks
	Answer any <i>five</i> questions	
1.	a. Describe <i>Clean Technology</i> . [CO3] b. What are the developmental activities requiring Environmental Clearance under the EIA notification, 2006? [CO4]	5+5
2.	a. Draw and explain the significance of the Waste Management Hierarchy in your own words. [CO3] b. What are the full forms of SEAC and MoEFCC? [CO4]	8+2
3.	a. Give two examples of "treatment of waste generating a secondary waste". [CO3] b. Draw the flowchart of the process for obtaining prior Environmental Clearance in India. [CO4]	2+8
4.	a. Describe <i>Life Cycle Assessment</i> mentioning the stages involved in a product's life cycle. [CO3] b. Describe Rapid and Comprehensive EIA? [CO4]	5+5
5.	a. What is the basis of determination of TOR? [CO4] b. What is sustainable development? [CO3]	5+5
6.	a. Describe Specific Condition and General Condition of the EIA notification, 2006. [CO4] b. Give two examples of minimising waste before generation? [CO3]	5+5