

University of Asia Pacific
Department of Civil Engineering
Final Examination Spring 2012
Program: B. Sc. Engineering (Civil)

Course Title: Environmental Engineering VII
Time: 2 hour

Course Code: CE 439
Full marks: 100

Question No. 1 is compulsory. Answer THREE from the rest.
(Note: Assume any missing data)

1. (a) The following potential negative impacts will be occurred, due to implementation of a flood protection embankment : (25)

loss of land ; loss of income; loss of trees; damage of crop fields; dust blowing; noise level rise; loss of top soil from agricultural land; water logging ; fisheries; wild life.

Prepare an environmental Mitigation plan and Monitoring plan.
2. (a) Describe the main steps include in the EIA process. (15)
- (b) Briefly discuss the environmental clearance procedure from DoE (Department of Environment) for all category industrial units and projects. (10)
3. (a) Write down the types of impacts of different projects ? Discuss them briefly. (15)
- (b) Categories the following project into green, orange-A, orange-B and red category projects. (10)
 - I. Animal slaughter house- a) Slaughter of cows/ buffaloes (number greater than 10 but less than or equal to 20 per day)
 - II. Hospital (number of beds more than 20 but less than or equal to 50 beds)
 - III. Hospital (number of beds more than 50)
 - IV. Fishing and aquaculture on land measuring between 2 to 10 hectares
 - V. Fishing and aquaculture –a) aquaculture development projects of an area more than 10 ha.
 - VI. Waste management-a) Sewage treatment plant (STP), excluding industrial STP , b) Common Effluent Treatment Plant (CETP)
 - VII. Industries involved with manufacture, storage or use of radioactive materials
 - VIII. Nuclear power plant
 - IX. Poultry (up to 250 in urban areas and up to 1,000 in rural areas)
 - X. Sewing thread coning, without dyeing and washing
4. (a) Define baseline environment (physical, biological, socio-economic) of a project area. (8)
- (b) Why Environmental Management Plan is vital in EIA ? Discuss environmental mitigation plan and environmental monitoring plan. (5+12)
5. (a) Discuss the importance of EIA (Environmental Impact Assessment) for a construction related project. (8)

(b) Write down the obstacles to the implementation in EIA.

(5)

(c) What are the policies, acts & rule related to the environment protection in Bangladesh ?

(12)