BANGLADESH UNIVERSITY OF PROFESSIONALS
Military Institute of Science and Technology
B.Sc. in Environmental, Water Resources, and Coastal Engineering, Term Final (Spring) Examination 2023: Jul-Sep 2023

Student Group: Earned Credit Hours >108

Subject: EWCE 431, Environment and Social Impact Assessment

Time: 3.00 hours **Full Marks: 180**

INSTRUCTIONS:

a. Use **SEPARATE** answer scripts for each section.
b. **Question-1**in **Section-A** and **Question-5** in **Section-B** are compulsory
c. Answer any other **TWO** questions out of **THREE** from each section.
d. Figures in the margin indicate full **marks**.
e. Assume reasonable data if necessary.
f. **Symbols** and **abbreviations** used have their usual meanings.

SECTION-A

Question 1 (Compulsory)

a. Define Environmental Impact Assessment (EIA). What are the important considerations and fundamental objectives of EIA? **10**

b. Mention various steps of EIA process with a diagram. Why baseline study is important in EIA? **10**

c. What are the areas in a development project from where the significant impacts are likely to occur? Explain with some examples. **10**

Question 2

a. What are the steps followed to measure environmental costs in economic evaluation of environments impacts? Explain with a diagram. **10**

b. Briefly discuss about the effects of development induced population displacement. What are the factors to be considered to implement a rehabilitation program? **10**

c. What are the major environmental issues in Bangladesh? How do human activities degrade the environment? **10**

Question 3

a. Government of Bangladesh (GOB) has planned to establish 100 Economic Zone (EZ) in Bangladesh. The SIA assessments need to be done for these projects focus on the social problems that need to be upgraded to improve the quality of life, health and economy. Based on the above requirements answer the following: **20**
(i) Define SIA and its importance in an EIA.
(ii) What types of social impacts should be addressed? Give examples.
(iii) Briefly explain different methods of data acquisition in SIA. Give examples.

b. Explain how ‘Gender Equality’ can be integrated into ESIA process. **10**

Question 4

a. Briefly describe the process of obtaining Environmental Clearance Certificate (ECC) for Orange B and Red category projects. **10**

b. Define Environmental Management Plan (EMP). What are the roles and importances of EMP in EIA? Outline the content of an EMP report. **10**

c. Develop a mitigation plan as part of EMP at the construction and operation phases of a highway project mentioning institutional responsibilities and required budget for mitigation measures. **10**

SECTION-B

Question 5 **(Compulsory)**

a. Briefly describe the salient features of Environmental Inventory. Explain the context of transition from EIA to ESIA in brief. **10+10=20**

b. Briefly explain the scopes of public participation in different stages of ESIA. **10**

Question 6

a. Explain how the Matrix methods differ from the checklist methods used for ESIA studies. **10**

b. Briefly discuss about the salient features of the Ad-hoc method along with its drawbacks. Describe the categories of checklist methods used in the ESIA studies. **10+10=20**

Question 7

a. Briefly explain the objectives and application of Environmental Monitoring in ESIA studies for development projects. **10**

b. Describe the categories of Environmental Monitoring in brief. Discuss the salient features of the Environmental Monitoring Plan. **10+10=20**

Question 8

a. Discuss about the key environmental regulation required from Bangladesh Environment Conservation Rules for development projects. **10**

b. Explain the levels of public involvement in an ESIA study. Briefly justify involvement of the typical stakeholders in the development projects. **10+10=20**