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: GEEM 445, Engineering Ethics and Professional Practices

Time: 3.00 hours **Full Marks: 120**

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 ethics. How do you differentiate between law and ethics? What do you mean by communication? Write down the importance of professional communication. **05**

b. Write down your understanding on the project proposal. Briefly describe the different types of project proposals. **05**

c. Describe in brief the key issues faced by the Civil and Environmental/Water Resources Engineers. Write down the attributes of Civil and Environmental/Water Resources Engineering. **05**

d. Write down the five codes of Ethics of Institution of Engineers (IEB), Bangladesh. **05**

Question 2

a. Write down your understanding on the technical proposal of product/ works. Enumerate the types of technical proposals. Briefly describe the different steps of writing technical proposals for products/works. **08**

b. Define professional/business communication. Why a professional/ business meeting is necessary? Describe in brief the different steps of conducting a professional/ business meeting. **08**

c. Define consulting engineers. What is BACE? Briefly describe the characteristics of consulting engineers. **04**

Question 3

a. Explain the terms of professionals and the professional practices. As a junior engineer how do you maintain professionalism in your workplace? **06**

b. Define engineering ethics. What is the objective of engineering ethics? Briefly describe the divisions of ethical theories. Which ethical theory is related to professional ethics? Why? **08**

c. Explain the types of meeting room arrangements for professional meetings. Describe in brief the benefits of face to face meeting in a project/business. **06**

Question 4

a. Define the barriers of professional/business communication. Write down the types of barriers in professional communication. Briefly describe the human factors leading to barriers in professional communication. **08**

b. Write down the differences between the principles and the canons of code of conduct/ethics. Why the professionals like engineers should follow code of ethics? Explain with examples the some works that are unethical but legal and some are ethical but illegal. **08**

c. Define the financial proposal for a project. Describe in brief the essential elements of a financial proposal for a project. **04**

SECTION-B

Question 5 **(Compulsory)**

a. Define a project. Briefly describe the fundamental criteria of a project. **05**

b. Write down your understanding on the professional engagement in professional services. Differentiate between statement of the works and scope of the works. **05**

c. Write down the meanings of contract in professional services as PPR-2008. Briefly describe the types of Public Private Partnership (PPP) project with examples. **05**

d. Define Development Project Proposal (DPP). Describe in brief the approval process of DPP in Bangladesh. **05**

Question 6

a. Write down the meanings of procurement and public procurement as per PPR-2008. Write short notes on the followings: **08**
   i) HOPE
   ii) Responsive Tenderers
   iii) Force majeure

b. Define Open Tendering Method (OTM). Briefly describe the procedures of Two-stage Tendering method and One-stage Two Envelopes Tendering method for the procurement of goods/ execution of works. **07**

c.. Define the Request for Quotation method (RFQ) of procurement. Write down the documents that are needed for RFQ method of procurement of goods. **05**

Question 7

a. Define Tender Evaluation Committee (TEC). Write down the circumstances basing on which TEC will not consider the tenderers to be responsive. Describe the functions of TEC on the following circumstances: **08**
   i) If tenderers offer price significantly below the official estimate of contract.
   ii) If the lowest evaluated tenderer has significantly higher price than the official estimate.
   iii) If there is a tie for the lowest evaluated price among the tenderers.

b. Write down your understanding about the Tender Document (TD) in tendering methods. What are the information/ conditions **07**

Procuring Entity (PE) to set out clearly in the TD? List down the name of documents forming contract of the implementation of a project.

c. Write down the meanings of goods, works and services in procurement methods. Write down the differences between good/ works and service as per PPR-2008. **05**

Question 8

a. As an applicant, what will be your responsibilities before responding to a job advertisement? What is CV? Why your CV is likely to be rejected? Write down the main parts of a standard CV. **08**

b. Define tender security and performance security in tendering process. Write down the requirements of tender security and performance security in tendering. Briefly describe the Quality and Cost Based Selection (QCBS) system for intellectual and professional services in any project. **07**

c. Define specifications in tendering process. What are the main points to be considered to prepare technical specifications of goods/ works? Write down the points, PE describe clearly during preparation of technical specifications in the TD. **05**