



These problems address topics from the NCEES FE Civil CBT Exam Specifications at <https://ncees.org/wp-content/uploads/FE-Civil-CBT-specs-1.pdf>, see below.

FE Civil Review 2022

Ethics and Professional Practice

NCEES Fundamentals of Engineering (FE)

CIVIL CBT Exam Specifications

Effective Beginning with the July 2020 Examinations



YouTube Playlist

Knowledge

Number of Questions

2. Ethics and Professional Practice

4-6

- A. Codes of ethics (professional and technical societies)
- B. Professional liability
- C. Licensure
- D. Contracts and contract law

Notes

V1.01 published 4/26/2022



A. Codes of ethics (professional and technical societies)

Question 1: A professional engineer is the principal at an engineering company and has multiple designers and engineers working on a project. Based on the Model Code of Ethics, select all of the instances where it is appropriate for the engineer to sign and seals plans associated with this project.

- ☐ The engineer may sign and seal plans which he personally prepared and did the design.
- ☐ The engineer may sign and seal plans if the design was developed by employees of his firm, if a general review is performed.
- ☐ The engineer may sign and seal drawings prepared by other professional engineers that are working under his direct supervision and responsible charge, and are reviewed in detail.
- ☐ The engineer may sign and seal plans prepared by other unlicensed designers that are working under his direct supervision and responsible charge, and are reviewed in detail.
- ☐ The engineer may sign and seal drawings for coordination of multiple disciplines if each technical segment is signed and sealed by a licensee responsible for the respective technical segments.
- ☐ The engineer may sign and seal designs prepared by other licensed engineers as the design engineer in responsible charge.

Note: for cases that pertain to responsibility for signing and sealing drawings, see NSPE Board of Ethical Review Case Numbers 86-02, 90-06 and 20-05.

<https://www.nspe.org/sites/default/files/resources/pdfs/Ethics/EthicsResources/EthicsCaseSearch/1986/BER%2086-2.pdf>

<https://www.nspe.org/sites/default/files/Ber90-6.pdf>

https://www.nspe.org/sites/default/files/BER_Case_20-02-Approved.pdf



A. Codes of ethics (professional and technical societies)

Question 2: An engineer is retained to perform an inspection of asphalt on a bridge. During the inspection, the engineer notices a potential defect in a structural wall that may have contributed to a fatal accident that occurred on the bridge in the past year. The engineer notes this information in his field notes and then notifies his client of the potential defect. The client then notifies the public agency that owns the bridge. At the request of the public agency, the engineer does not include the information about the wall in his final report on the asphalt inspection, but the engineer does retain the information in his field notes.

Which of the following statements best captures the ethical considerations presented?

- A. The engineer acted ethically as the potential defect was raised to the appropriate parties for further consideration, but was not included in the report since it was speculation and not based on actual design calculations, testing or evaluation by a competent professional
- B. The engineer acted ethically to notify the agencies, but acted unethically in not including the potential wall defect in the final report as this information should be documented to ensure further evaluation is performed.
- C. The engineer acted unethically by not performing further analysis of the potential defect to determine the adequacy of the bridge.
- D. The engineer acted unethically, since ignoring the potential defect and leaving it out of the final report could jeopardize the health, safety, or welfare of the public and the engineer has an obligation to document the potential defect to appropriate legal authorities.

Note: this question was adapted from NSPE Board of Ethical Review Case Number 97-13, "Duty To Report Unrelated Information Observed During Rendering Of Services." For additional information, see <https://www.nspe.org/resources/ethics/ethics-resources/board-ethical-review-cases/duty-report-unrelated-information>



A. Codes of ethics (professional and technical societies)

Question 3: An engineer is retained to perform a routine mine inspection. Upon arriving at the site, the engineer realized he forgot his safety boots and will be unable to enter the mine to perform the inspection. Due to the remote nature of the site, the mine company routinely provides visitors to the site with required personal protective equipment including boots for use at the site. The engineer recognizes that accepting the boots will violate his company's code of ethics since the company prohibits accepting gifts that have a value of more than \$100.

Select all of the following approaches that would be considered ethical:

- ☐ The engineer may accept the boots, and is not obligated to notify his employer as the boots are nominally more than \$100. By accepting the boots, the engineer will avoid costs associated with delaying the inspection, resulting in a net savings to the company.
- ☐ The engineer may accept the boots, and is obligated to notify his employer since the boots are more than \$100 threshold set by the company.
- ☐ The engineer may use the boots and return them after the inspection. The engineer is not obligated to notify his employer since the boots were used and returned.
- ☐ The engineer may decline the boots and request that the inspection be postponed.
- ☐ The engineer is not obligated to disclose his forgetting his boots and should postpone the inspection without the need for further explanation.
- ☐ The engineer should proceed with the inspection and forego the safety boot requirement since it is a personal impact and does not affect the safety of others.

Note: this question was adapted from NSPE Board of Ethical Review Case Number 20-05, "Gifts—Mining Safety Boots." For additional information, see <https://www.nspe.org/resources/ethics/ethics-resources/board-ethical-review-cases/gifts-mining-safety-boots>



B. Professional liability

Question 4: Engineer A was the primary engineer with direct control for a design of a project at Firm X. When the project was in final review, i.e., essentially complete, Engineer A left to work at Firm Y. Prior to leaving, Engineer A did not sign or seal the drawings as the design was not fully complete. A principal from Firm X asks Engineer A to sign and seal the drawings.

An ethical response for Engineer A would be:

- A. To ignore the request as he has no obligation to the former employer.
- B. To refuse to sign and seal the drawings as he no longer works at Firm X and is no longer in direct control of the design.
- C. To request a nominal fee to review the final changes and to sign and seal the drawings.
- D. To request that the contract be transferred to his new firm due to professional liability concerns.

Note: this question is adapted from NSPE Board of Ethical Review Case Number 96-03, "Refusing to Sign/Seal Construction Documents." For additional information, see <https://www.nspe.org/sites/default/files/Ber96-3-app.pdf>



C. Licensure

Question 5: Experience requirements that must be satisfied for individuals seeking professional licensure typically include all the following except:

- A. Eight years of progressive experience for students that graduated from an EAC/ABET-accredited engineering program with a qualifying associate's degree.
- B. Four years of progressive experience for students that graduated from an EAC/ABET-accredited engineering program with a qualifying bachelor's degree.
- C. Three years of progressive experience for students that graduated from an EAC/ABET-accredited engineering program with a qualifying master's degree.
- D. Two years of progressive experience for students that graduated with a qualifying doctoral degree in engineering.

C. Licensure

Question 6: The profession of engineering requires all the following except:

- A. special knowledge
- B. special privileges
- C. special responsibilities
- D. special powers

C. Licensure

Question 7: Obtaining a professional engineering license in a given state indicates which of the following:

- A. The licensee is minimally qualified to practice engineering.
- B. The licensee is an expert in their respective field of examination.
- C. The licensee may accept professional services contracts only for which they are insured.
- D. The licensee is qualified to perform each assignment provided by his employer.



C. Licensure

Question 8: A state licensing board could revoke a professional engineer's license for which of the following:

- A. Evidence of alcoholism
- B. Defaulting on a home mortgage
- C. Issuing public opinions based on facts
- D. Running for a political office

D. Contracts and contract law

Question 9: The three main requirements necessary for a valid contract are typically:

- A. Design, Bid, Build
- B. Offer, Acceptance, Consideration
- C. Design, Solicitation, Bid
- D. Solicitation, Offer, Build



D. Contracts and contract law

Question 10: Engineering Firm X holds professional services contracts with private companies Y and Z. The project work at Firm X has exceeded the budget for Company Y and Supervisor A directs Engineer B to charge future time to the budget of Company Z, which is well under budget.

Select the all of the following that would be considered ethical approaches for Engineer B:

- ☐ Charge time as directed to Company Z.
- ☐ Charge time to Company Y and ignore Supervisor A's directive.
- ☐ Charge time to Company Y and communicate concerns with incorrectly charging time to Supervisor A and firm principals if the directive does not change.
- ☐ If convinced that Supervisor A and Firm X is acting unethically, document the process, resign from Firm X and report the unethical practices.
- ☐ Contact Company Y and Z to suggest transferring the contracts from Firm X directly to Engineer B due to internal ethical concerns with billing and misappropriation of funds.
- ☐ Notify the press

Note: this question is adapted from NSPE Board of Ethical Review Case Number 14-6, "Misrepresentation – Charging of Engineer's Time to a Budget Unrelated to Engineer's Work." For additional information, see <https://www.nspe.org/sites/default/files/BER14-6%20APPROVED.pdf>