1. What must be proven for damages to be collected from a strict liability in tort?
   (A) that willful negligence caused an injury
   (B) that willful or unwillful negligence caused an injury
   (C) that the manufacturer knew about a product defect before the product was released
   (D) none of the above

2. A material breach of contract occurs when the
   (A) contractor uses material not approved by the contract for use
   (B) contractor's material order arrives late
   (C) owner becomes insolvent
   (D) contractor installs a feature incorrectly

3. If a contract has a value engineering clause and a contractor suggests to the owner that a feature or method be used to reduce the annual maintenance cost of the finished project, what will be the most likely outcome?
   (A) The contractor will be able to share one time in the owner's expected cost savings.
   (B) The contractor will be paid a fixed amount (specified by the contract) for making a suggestion, but only if the suggestion is accepted.
   (C) The contract amount will be increased by some amount specified in the contract.
   (D) The contractor will receive an annuity payment over some time period specified in the contract.
4. A tort is
   (A) a civil wrong committed against another person
   (B) a section of a legal contract
   (C) a legal procedure in which complaints are heard in front of an arbitrator rather than a judge or jury
   (D) the breach of a contract

5. If a contract does not include the boilerplate clause, “Time is of the essence,” which of the following is true?
   (A) It is difficult to recover losses for extra hours billed.
   (B) Standard industry time guidelines apply.
   (C) Damages for delay cannot be claimed.
   (D) Workers need not be paid for downtime in the project.

6. Which statement is true regarding the legality and enforceability of contracts?
   (A) For a contract to be enforceable, it must be in writing.
   (B) A contract to perform illegal activity will still be enforced by a court.
   (C) A contract must include a purchase order.
   (D) Mutual agreement of all parties must be evident.
7. Which option best describes the contractual lines of privity between parties in a general construction contract?

(A) The consulting engineer will have a contractual obligation to the owner, but will not have a contractual obligation with the general contractor or the subcontractors.

(B) The consulting engineer will have a contractual obligation to the owner and the general contractor.

(C) The consulting engineer will have a contractual obligation to the owner, general contractor, and subcontractors.

(D) The consulting engineer will have a contractual obligation to the general contractor, but will not have a contractual obligation to the owner or subcontractors.

8. A contract has a value engineering clause that allows the parties to share in improvements that reduce cost. The contractor had originally planned to transport concrete on-site for a small pour with motorized wheelbarrows. On the day of the pour, however, a concrete pump is available and is used, substantially reducing the contractor’s labor cost for the day. This is an example of

(A) value engineering whose benefit will be shared by both contractor and owner

(B) efficient methodology whose benefit is to the contractor only

(C) value engineering whose benefit is to the owner only

(D) cost reduction whose benefit will be shared by both contractor and laborers
9. In which of the following fee structures is a specific sum paid to the engineer for each day spent on the project?

(A) salary plus
(B) per-diem fee
(C) lump-sum fee
(D) cost plus fixed fee

10. What type of damages is paid when responsibility is proven but the injury is slight or insignificant?

(A) nominal
(B) liquidated
(C) compensatory
(D) exemplary

1. An environmental engineer with five years of experience reads a story in the daily paper about a proposal being presented to the city council to construct a new sewage treatment plant near protected wetlands. Based on professional experience and the facts presented in the newspaper, the engineer suspects the plant would be extremely harmful to the local ecosystem. Which of the following would be an acceptable course of action?

(A) The engineer should contact appropriate agencies to get more data on the project before making a judgment.

(B) The engineer should write an article for the paper’s editorial page urging the council not to pass the project.

(C) The engineer should circulate a petition through the community condemning the project, and present the petition to the council.

(D) The engineer should do nothing because he doesn’t have enough experience in the industry to express a public opinion on the matter.
2. An engineer is consulting for a construction company that has been receiving bad publicity in the local papers about its waste-handling practices. Knowing that this criticism is based on public misperceptions and the paper’s thirst for controversial stories, the engineer would like to write an article to be printed in the paper’s editorial page. What statement best describes the engineer’s ethical obligations?

(A) The engineer’s relationship with the company makes it unethical for him to take any public action on its behalf.

(B) The engineer should request that a local representative of the engineering registration board review the data and write the article in order that an impartial point of view be presented.

(C) As long as the article is objective and truthful, and presents all relevant information including the engineer’s professional credentials, ethical obligations have been satisfied.

(D) The article must be objective and truthful, present all relevant information including the engineer’s professional credentials, and disclose all details of the engineer’s affiliation with the company.
3. After making a presentation for an international project, an engineer is told by a foreign official that his company will be awarded the contract, but only if it hires the official’s brother as an advisor to the project. The engineer sees this as a form of extortion and informs his boss. His boss tells him that, while it might be illegal in the United States, it is a customary and legal business practice in the foreign country. The boss impresses upon the engineer the importance of getting the project, but leaves the details up to the engineer. What should the engineer do?

(A) He should hire the official’s brother, but insist that he perform some useful function for his salary.

(B) He should check with other companies doing business in the country in question, and if they routinely hire relatives of government officials to secure work, then he should do so too.

(C) He should withdraw his company from consideration for the project.

(D) He should inform the government official that his company will not hire the official’s brother as a precondition for being awarded the contract, but invite the brother to submit an application for employment with the company.

4. If one is aware that a registered engineer willfully violates a state’s rule of professional conduct, one should

(A) do nothing

(B) report the violation to the state’s engineering registration board

(C) report the violation to the employer

(D) report the violation to the parties it affects

5. Which of the following is an ethics violation specifically included in the NCEES Model Rules?

(A) an engineering professor “moonlighting” as a private contractor

(B) an engineer investing money in the stock of the company for which he/she works

(C) a civil engineer with little electrical experience signing the plans for an electric generator

(D) none of the above
6. A senior licensed professional engineer with 30 years of experience in geotechnical engineering is placed in charge of a multidisciplinary design team consisting of a structural group, a geotechnical group, and an environmental group. In this role, the engineer is responsible for supervising and coordinating the efforts of the groups when working on large interconnected projects. In order to facilitate coordination, designs are prepared by the groups under the direct supervision of the group leader, and then they are submitted to her for review and approval. This arrangement is ethical as long as

(A) the engineer signs and seals each design segment only after being fully briefed by the appropriate group leader

(B) the engineer signs and seals only those design segments pertaining to geotechnical engineering

(C) each design segment is signed and sealed by the licensed group leader responsible for its preparation

(D) the engineer signs and seals each design segment only after it has been reviewed by an independent consulting engineer who specializes in the field in which it pertains

7. The National Society of Professional Engineers’ (NSPE) Code of Ethics addresses competitive bidding. Which of the following is NOT stipulated?

(A) Engineers and their firms may refuse to bid competitively on engineering services.

(B) Clients are required to seek competitive bids for design services.

(C) Federal laws governing procedures for procuring engineering services (e.g., competitive bidding) remain in full force.

(D) Engineers and their societies may actively lobby for legislation that would prohibit competitive bidding for design services.
8. You are a city engineer in charge of receiving bids on behalf of the city council. A contractor's bid arrives with two tickets to a professional football game. The bid is the lowest received. What should you do?

   (A) Return the tickets and accept the bid.
   (B) Return the tickets and reject the bid.
   (C) Discard the tickets and accept the bid.
   (D) Discard the tickets and reject the bid.

9. A relatively new engineering firm is considering running an advertisement for their services in the local newspaper. An ad agency has supplied them with four concepts. Of the four ad concepts, which one(s) would be acceptable from the standpoint of professional ethics?

   I. an advertisement contrasting their successes over the past year with their nearest competitors' failures
   II. an advertisement offering a free television to anyone who hires them for work valued at over $10,000
   III. an advertisement offering to beat the price of any other engineering firm for the same services
   IV. an advertisement that tastefully depicts their logo against the backdrop of the Golden Gate Bridge

   (A) I and III
   (B) I, III, and IV
   (C) II, III, and IV
   (D) neither I, II, III, nor IV
10. Complete the sentence: “A professional engineer who took the licensing examination in mechanical engineering

(A) may not design in electrical engineering.”

(B) may design in electrical engineering if she feels competent.”

(C) may design in electrical engineering if she feels competent and the electrical portion of the design is insignificant and incidental to the overall job.”

(D) may design in electrical engineering if another engineer checks the electrical engineering work.”