

# Foundations of Civil Engineering

Civil Engineering · Practice Test · 10 Questions

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**1. Which of the following is a primary function of a civil engineer in the design of a bridge?**

- A) Developing the aesthetic paint scheme.
- B) Ensuring structural integrity and load-bearing capacity.
- C) Sourcing and negotiating material prices.
- D) Managing public relations for the project.

**2. What is the primary role of a soil test (e.g., geotechnical investigation) before constructing a building?**

- A) To determine the optimal location for landscaping.
- B) To assess the soil's ability to support the foundation loads.
- C) To identify underground utility lines for relocation.
- D) To measure the groundwater salinity.

**3. In the context of water supply systems, what is the main purpose of a reservoir?**

- A) To purify water through filtration.
- B) To store water and regulate its supply.
- C) To generate hydroelectric power.
- D) To transport water to treatment plants.

**4. Which type of concrete mix is commonly used for structural elements that require high strength and durability, such as bridge decks or high-rise building columns?**

- A) Lightweight concrete
- B) High-strength concrete
- C) Pervious concrete
- D) Foam concrete

**5. What is the primary objective of traffic engineering when designing road intersections?**

- A) To maximize the number of lanes for unrestricted flow.
- B) To ensure safe and efficient movement of vehicles and pedestrians.
- C) To implement aesthetic landscaping around the intersection.
- D) To provide ample parking spaces adjacent to the intersection.

**6. What structural component is designed to transfer loads from a building's superstructure to the foundation?**

- A) Roof truss
- B) Wall panel
- C) Column
- D) Plaster ceiling

**7. Which of the following is a key material used in the construction of railway tracks?**

- A) Asphalt
- B) Reinforced concrete
- C) Steel
- D) Wood

**8. What is the primary function of a wastewater treatment plant?**

- A) To desalinate seawater.
- B) To remove pollutants from sewage before discharge.
- C) To supply potable water to urban areas.
- D) To create artificial rain.

**9. What is the term for the process of planning, designing, and managing the construction of infrastructure projects?**

- A) Urban planning
- B) Project management
- C) Environmental impact assessment
- D) Surveying

**10. Which civil engineering discipline focuses on the study and design of earthworks, such as dams, embankments, and tunnels?**

- A) Structural engineering
- B) Transportation engineering
- C) Geotechnical engineering
- D) Environmental engineering