Conducting Site Analysis for Landscape Design

Part 1: Dialogue

Isabel (Landscape Architect): Before we start designing, we need to complete a full site analysis. Have you checked the **slope stability** of the terrain?

Daniel (Colleague): Yes, I reviewed the soil reports, and the steeper areas might need reinforcement to prevent erosion. We should also do a **microclimate assessment** to see how sunlight and wind affect the site.

Isabel: Good idea. The positioning of trees and structures will depend on those factors. Have you analyzed the **soil permeability** to determine how well it drains?

Daniel: Not yet, but I can run some infiltration tests. If the soil has poor permeability, we may need to add drainage solutions. What about **wind exposure**?

Isabel: That's another critical factor. If the site has strong winds, we'll need to include windbreaks like hedges or strategically placed walls.

Daniel: That makes sense. Also, for proper **site grading**, we should consider how water flows across the land to prevent flooding in low areas.

Isabel: Right, and adjusting the grading can help with accessibility and aesthetics as well. I'll start sketching a rough grading plan based on our findings.

Daniel: Sounds good. Let's finalize our analysis and prepare a report for the client before moving forward with the design.

Isabel: Agreed. The more detailed our site study is now, the smoother the design process will be.

Daniel: Exactly. Let's gather our final data and schedule a meeting to discuss our recommendations.

Part 2: Comprehension Questions

1. Why is **slope stability** important in landscape design?
   (A) It ensures that steep areas won't cause erosion or landslides
   (B) It determines where to place decorative elements
   (C) It helps with selecting tree species
   (D) It improves air circulation in the space
2. How does **wind exposure** affect landscape planning?
   (A) It determines soil nutrient levels
   (B) It prevents wildlife from entering the area
   (C) It eliminates the need for drainage solutions
   (D) It helps decide where to place windbreaks
3. What does **soil permeability** measure?
   (A) How easily water drains through the soil
   (B) The amount of sunlight a site receives
   (C) The wind speed at different elevations
   (D) The chemical composition of the soil
4. What is the purpose of **site grading**?
   (A) To ensure the soil maintains the right pH balance
   (B) To evaluate the best plant species for the location
   (C) To control water flow and prevent flooding
   (D) To increase the temperature of the ground surface

Part 3: Vocabulary with Definitions

- **Slope stability (斜面安定性)** – The ability of a slope to remain in place without collapsing or eroding.
- **Microclimate assessment (微気候評価)** – The study of how local climate factors, such as temperature, sunlight, and wind, affect a specific site.

- **Soil permeability (土壌透水性)** – The measure of how easily water drains through the soil.
- **Wind exposure (風の影響)** – The extent to which a site is affected by wind, which influences plant selection and structure placement.
- **Site grading (敷地整地)** – Adjusting the land's surface to control water drainage, improve stability, and enhance the site's overall function.

Part 4: Answer Key

1. **Why is slope stability important in landscape design?**
   ✅ (A) It ensures that steep areas won't cause erosion or landslides
2. **How does wind exposure affect landscape planning?**
   ✅ (D) It helps decide where to place windbreaks
3. **What does soil permeability measure?**
   ✅ (A) How easily water drains through the soil
4. **What is the purpose of site grading?**
   ✅ (B) To control water flow and prevent flooding