What Is Site Analysis in Architecture?

Worksheet

Site analysis is the process of studying a site's topography, climate, sun path, views, access, soil, vegetation, and zoning constraints before designing; site planning then uses those findings to position buildings, roads, and open space on the land.

Questions

1. A 2,000 m site has a maximum allowed FAR of 2.5. What is the maximum total floor area?

A) 2,500 m
B) 5,000 m
C) 800 m
D) 4,500 m

2. Which of these is typically studied FIRST in site analysis?

A) Interior furniture layout
B) Topography and existing site conditions
C) Paint colors
D) Furniture vendor selection

3. What does 'setback' refer to in site planning?

A) The height of a building
B) The minimum distance a building must be from a property line
C) The building's floor area ratio
D) The type of foundation used

4. A building footprint of 800 m sits on a 4,000 m site. What is the site coverage ratio?

A) 5%
B) 20%
C) 50%
D) 80%

5. A developer owns a 1,000 m lot in a zone with a maximum FAR of 3.0. What is the maximum total floor area allowed?

6. A site analysis shows the site slopes 6 m over a 120 m run from north to south. What is the average slope as a percentage?

7. A rectangular building footprint of 25 m 40 m sits on a 2,500 m site. What is the site coverage ratio?

8. Define: What is site analysis?

9. Define: What is Floor Area Ratio (FAR)?

10. Define: What is a setback in site planning?

Answer Key

1. B) 5,000 m - A_floor = FAR A_site = 2.5 2,000 = 5,000 m.

2. B) Topography and existing site conditions - Site analysis starts with the physical site - topography, soil, vegetation - before any design decisions are made.

3. B) The minimum distance a building must be from a property line - A setback is a required clearance distance from lot lines, roads, or other structures.

4. B) 20% - Coverage = 800 / 4,000 = 0.20 = 20%.

5. FAR = A_floor / A_site A_floor(max) = FAR A_site = 3.0 1,000 = 3,000 m

6. Slope % = (rise / run) 100 Slope % = (6 / 120) 100 = 5%

7. Building footprint = 25 40 = 1,000 m Coverage ratio = footprint / site area = 1,000 / 2,500 = 0.40 = 40%

8. The systematic study of a site's physical, environmental, and legal conditions before design begins.

9. The ratio of a building's total floor area to the site area - FAR = A_floor / A_site - used to control development density.

10. The minimum required distance a building must be positioned from a property line, road, or other structure.