

1. Which type of slab is supported only on one end and projects beyond its support?

- a) Simply supported slab
- b) Cantilever slab
- c) Continuous slab
- d) Two-way spanning slab

Answer: b) Cantilever slab

Explanation: Cantilever slabs are supported only on one end and project beyond their support. They are commonly used in balconies and awnings.

2. What type of slab is supported on both ends and has no restraint against rotation at the supports?

- a) Cantilever slab
- b) Simply supported slab
- c) Continuous slab
- d) Two-way spanning slab

Answer: b) Simply supported slab

Explanation: Simply supported slabs are supported on both ends and are free to rotate at the supports. They are commonly used in bridges and buildings with beams as supports.

3. In which type of slab are the supports provided along both edges to allow continuous support?

- a) Cantilever slab
- b) Simply supported slab
- c) Continuous slab
- d) Two-way spanning slab

Answer: c) Continuous slab

Explanation: Continuous slabs have supports along both edges to provide continuous support, reducing bending moments and improving structural efficiency.

4. Which type of slab is designed to resist loads in two perpendicular directions?

- a) Cantilever slab
- b) Simply supported slab
- c) Continuous slab
- d) Two-way spanning slab

Answer: d) Two-way spanning slab

Explanation: Two-way spanning slabs are designed to resist loads in two perpendicular directions, making them suitable for larger spans and heavier loads.

5. What type of slab has a circular shape?

- a) Circular slab
- b) Cantilever slab
- c) Continuous slab
- d) Two-way spanning slab

Answer: a) Circular slab

Explanation: Circular slabs have a circular shape and are commonly used in architectural designs for features like domes and circular rooms.

6. Which type of slab has a ribbed structure resembling a waffle?

- a) Waffle slab
- b) Cantilever slab
- c) Continuous slab
- d) Two-way spanning slab

Answer: a) Waffle slab

Explanation: Waffle slabs have a ribbed structure resembling a waffle, which provides higher stiffness and reduced weight compared to solid slabs.

7. In which type of slab are drop panels or column capitals used to enhance stiffness and load distribution?

- a) Flat slab
- b) Cantilever slab
- c) Continuous slab
- d) Two-way spanning slab

Answer: a) Flat slab

Explanation: Flat slabs utilize drop panels or column capitals to enhance stiffness and

improve load distribution, making them suitable for heavy loads and larger spans.

8. Which theory is used to analyze the ultimate load-carrying capacity of reinforced concrete slabs?

- a) Yield line theory
- b) Elastic theory
- c) Plastic theory
- d) Limit state theory

Answer: a) Yield line theory

Explanation: Yield line theory is commonly used to analyze the ultimate load-carrying capacity of reinforced concrete slabs by considering the formation of yield lines where plastic hinges develop.

9. Which type of slab relies on the principle of plastic hinges forming along predetermined lines of weakness?

- a) Flat slab
- b) Cantilever slab
- c) Continuous slab
- d) Two-way spanning slab

Answer: a) Flat slab

Explanation: Flat slabs rely on the principle of plastic hinges forming along predetermined lines of weakness, allowing redistribution of moments and enhancing load-carrying capacity.

10. What is the primary advantage of using yield line theory in slab design?

- a) It simplifies the analysis of complex slab geometries.
- b) It provides conservative estimates of slab capacities.
- c) It accounts for non-linear behavior and redistribution of moments.
- d) It is applicable only to two-way spanning slabs.

Answer: c) It accounts for non-linear behavior and redistribution of moments.

Explanation: Yield line theory accounts for non-linear behavior and redistribution of moments in slab design, providing a more accurate assessment of the ultimate load-carrying capacity.