

4(b). Suggest the relevant method of water proofing used in the terrace of the building chajja and water tank.

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Ans= For waterproofing the terrace, chajja (balcony overhang), and water tank, several methods can be considered. Here are some relevant methods of waterproofing for these specific areas:

1. Bituminous Waterproofing: Bituminous waterproofing is a widely used method for terrace and chajja waterproofing. It involves the application of hot or cold bitumen-based materials. These materials form a thick, flexible, and impermeable membrane that provides effective waterproofing protection. Bituminous membranes can be torch-applied, self-adhesive, or liquid-applied, depending on the specific requirements and conditions of the project.

2. Polyurethane Waterproofing: Polyurethane-based waterproofing systems are popular for their excellent flexibility, durability, and resistance to UV rays. These systems typically consist of a liquid-applied polyurethane membrane that cures to form a seamless, elastic, and waterproof barrier. Polyurethane waterproofing is suitable for terraces, chajjas, and water tanks that are exposed to weathering and foot traffic.

3. Cementitious Waterproofing: Cementitious waterproofing involves the application of cement-based coatings or additives that enhance the waterproofing properties of concrete surfaces. These coatings can be in the form of cementitious slurries, polymer-modified cement coatings, or

crystalline waterproofing compounds. Cementitious waterproofing is commonly used for terrace and chajja waterproofing due to its affordability and compatibility with concrete substrates.

4. Liquid Applied Membrane (LAM) Systems: Liquid Applied Membrane systems are versatile waterproofing solutions that can be used for a variety of applications, including terraces, chajjas, and water tanks. These systems consist of a liquid-applied elastomeric membrane that adheres to the substrate and forms a continuous, seamless barrier against water penetration. LAM systems offer excellent flexibility, crack-bridging ability, and ease of application.

5. Sheet Membrane Waterproofing: Sheet membrane waterproofing involves the installation of pre-formed waterproofing membranes made of materials such as modified bitumen, PVC, EPDM, or TPO. These membranes are typically laid over the prepared substrate and joined with heat-welded seams or adhesive. Sheet membrane waterproofing is effective for terraces, chajjas, and water tanks that require high-performance waterproofing solutions.

6. Integral Waterproofing: Integral waterproofing involves incorporating waterproofing admixtures into the concrete mix during construction. These admixtures chemically react with the concrete to fill capillary voids, reducing permeability and enhancing the waterproofing properties of the structure. Integral waterproofing is commonly used for water tanks to provide long-lasting protection against water leakage.

The choice of waterproofing method depends on factors such as the

condition of the existing substrate, project requirements, budget, and the expertise of the contractor. It is advisable to consult with a professional waterproofing contractor or engineer who can assess the specific needs of the terrace, chajja, or water tank and recommend the most suitable waterproofing method for the project.

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