

FAQs

1. What is Reinforced cement concrete?

Reinforced concrete (RC) is a composite material in which concrete's relatively low tensile strength and ductility are counteracted by the inclusion of reinforcement having higher tensile strength and/or ductility.

Many different types of structures and components of structures can be built using reinforced concrete including slabs, walls, beams, columns, foundations, frames and more.

2. Write a brief on the Role of Joseph Monier in the History of Reinforced concrete.

Joseph Monier, a French gardener was granted a patent for reinforced flowerpots by means of mixing a wire mesh to a mortar shell.

In 1877, Monier was granted another patent for reinforcing concrete columns and girders with iron rods placed in a grid pattern.

Monier undoubtedly knew reinforcing concrete would improve its inner cohesion.

3. Write a brief on the Role of François Coignet and William B. Wilkinson in the History of Reinforced concrete.

François Coignet was a French industrialist, a pioneer in the development of structural, prefabricated and reinforced concrete.

In 1853 **Coignet** built the first iron reinforced concrete structure, a four story house in the suburbs of Paris.

In 1854, **William B. Wilkinson**, an English builder reinforced the concrete roof and floors in the two-storey house he was

constructing. His positioning of the reinforcement demonstrated that, unlike his predecessors, he had knowledge of tensile stresses.

4. Mention the structural engineers who contributed to early structural marvels made of reinforced concrete and list down few of his works.

Robert Maillart: He is a Swiss engineer, who lived between 1872-1940. He studied from Federal Institute of Technology, Zurich. He revolutionized the use of Reinforced concrete by introducing three hinged arch, Deck stiffened arch, Beam less floor slabs and Mushroom ceiling.

Works:

- Salginatobel Bridge, Schiers, Switzerland
- Warehouse Giesshübel, Switzerland
- Tavanasa Bridge
- Arve bridge

5. List down any three works of Pier Luigi Nervi.

- Stadio Artemio Franchi, Florence, Italy
- UNESCO World Headquarters, Paris, France
- Pirelli Tower, Milan, Italy
- Norfolk scope, Virginia