

## FAQs

### 1. Describe a famous application of iron in architecture

- The **United States Capitol dome** is the dome situated above the United States Capitol which reaches upwards to 288 feet (88 m) in height and 96 feet (29 m) in diameter.
- The dome was designed by Thomas U. Walter, the fourth Architect of the Capitol, and constructed between 1855 and 1866.
- The dome is **not stone, but cast iron** carefully painted to appear to be made of the same stone as the main capitol building. It is actually two domes, one inside the other.

### 2. Write briefly about types on iron used in construction industry

- There are various types of iron that are obtained from the iron ore. The most important types are as follows
- Pig iron - Pig Iron is a basic raw material for all irons
- Wrought iron - Wrought Iron is a mechanical mixture of pure iron and silicate slag
- Malleable iron - Malleable Cast Iron is obtained from hard and brittle white iron, through a controlled heat treatment conversion process.

### 3. Write a few notes about wrought iron properties and uses

- Soft
- Ductile
- Magnetic
- Strong - high elasticity and tensile strength
- Malleable - can be heated and reheated and worked into various shapes
- Becomes stronger the more it is worked
- Suitable for members in tension or compression (whereas cast iron is suitable for members in compression only).

### 4. Write a few notes about cast iron uses

- Cast iron has a number of applications in the culinary field. It is used to make pots and pans and all sort of utensils that are used for heating purposes. This is because the cast iron surface distributes the heat from the stove evenly all over its surface.

- Besides this, cast iron is widely used in piping applications, engines, parts of automobiles and were earlier used in building bridges
- It also has widespread use in architecture and buildings beginning from small applications to that of being full fledged structural units and support

#### **5. Describe a famous architects use of wrought iron in their architecture**

- Ironwork has been a Catalan trade since time immemorial, and Gaudí had no trouble incorporating it as a structural and decorative element in his work.
- He was able to count on the very receptive attitude of his fellow artisans, who willingly accepted Gaudí's proposal to revive old techniques and styles
- One of Gaudí's most impressive wrought iron works is the gate of the Güell Pavilions in Barcelona, constructed in 1885 at the Vallet i Piquer Workshops.