

## Welding & Allied Processes

Welding : Process of joining of two metals similar or dis-similar through fusion process without the use of adhesives is known as welding. It is an oldest method which is used to provide the maximum strength, rigidity, toughness to a particular metal (similar or dissimilar). The metal so welded if is a similar metal will procure the same properties, if the metal is dissimilar will procure both properties of two metals welded together.

The concept of weld : Every particular object that can either be cast welded or casted has a particular concept or idea which need to be fulfilled. The welding procedures for different types of welding can differ from metal to metal, but at the same time will conclude to one particular area; that is, either to join, cut or to melt.

Types of Welding : There are a large numbers of welding procedures, some of them which are of utmost important are as under :

- i.) Electric Arc Welding
- ii.) Forge Welding
- iii.) Spot Welding
- iv.) Gas Welding
- v.) Atomic-hydrogen Welding.
- vi.) Inert Arc Welding
  - Tungsten Inert gas Welding
  - Metal Inert gas Welding

Welding Voltage  $\Rightarrow$  80-90 v  
Striking Voltage  $\Rightarrow$  30-40v

### Forge Welding :

- Q1 Provide a detailed diagram with proper explanation of the working of electric arc welding, forge welding, gas welding, spot welding.
- Q2 State the difference b/w AC welding & DC welding.
- Q3 State the applications, uses & disadvantages of welding. Also provide relative examples to support the answer.