Instruments used in Chain Survey
Chain, 20m or 30m long
Tape
Arrows
Ranging rods
Wooden or Iron Pegs
Plumb bob
Cross staff

Chain used for Surveying
20m chain – 100 links
30m chain – 150 links
1 links – 20cm
Links of chain are made by mild steel wire – 4mm diameter.

Chain used for Chain Surveying
Each link at the end is bent into a loop and is connected to adjoiningly by means of three oval rings which offers flexibility to the chain. Ends of chains carry brass handle.
The length of chain is the distance between the outside of handles. Brass tags are fixed at every 5m length.

Tape used for Chain Surveying
Metallic Tape
Cloth tapes reinforced with brass, copper and bronze wires to prevent it from stretching.
They are available in lengths 10, 15, 20 and 30m.
Tape is provided in leather case fitted with winding device.
It is used for small linear measurements and for taking offsets.
Steel Tapes
Outer end of the tape carries better links for its easy handling and the length of tape is inclusive of this ring.
It is provided in a leather case or a rust-proof metal case with a suitable winding device.
Steel tapes are light, delicate and are used for measurements of distance with high degree of accuracy.

Arrows
Arrows or marking pins or chaining pins are used to mark the end of each chain during the process of chaining.
400mm in length are pointed at one end for intersecting into the ground and bend into a ring at the other end for facility of carrying.
A piece of white or red tape tied to the ring so that they can be made easily visible at a distance.

Ranging Rods
2m to 3m length and 2.5m diameter painted alternately with black or white.
An iron shoe provided at its bottom enable it to the fixed at a required point in the ground.
A coloured flag is provided at its tops so that it can be easily seen from a long distance.
They are used for ranging intermediate points along a given survey line and are also used to mark the positions of survey stations clearly.
Wooden or iron pegs
15cm long and 25mm to 30mm square cross-section prevail into the ground by wooden or steel hammer. Iron peg – 15cm long (1cm diameter)